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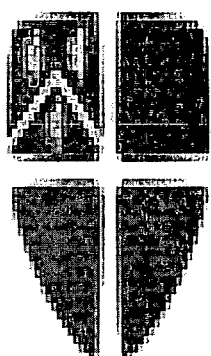
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**Durham
University**

**FISCAL POLICY AND
ECONOMIC PERFORMANCE
IN OMAN
DURING 1970-2003**

Thesis presented to
The University of Durham
School of Government and International Affairs
in partial fulfilment of the
requirements for the award of
Doctor of Philosophy Degree

By
Khalifa Salim Al-Fazari



2006

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- 4 MAY 2007

Fiscal Policy and Economic Performance in Oman (1970-2003)

By
Khalifa Salim Al-Fazari

Abstract

The state's calculated intervention in the economy is an issue accepted by researchers. To fulfil the overall goals of the economy and to achieve its full potential, the state has to involve itself in the economics of production and distribution throughout the nation. Within this framework, the state national budget emerges as an essential method in the fiscal planning's implementation process. Thus, the economic policies' goals should comply with the goals of the economic plans. The Sultanate of Oman has adopted the economic planning approach since 1976, when successive five-year plans began. Since that time, a high level of investment in infrastructure and social services has been achieved. Nonetheless, by having a look at the economic indicators in the overall economy and in particular sectors, a significant conclusion can be drawn; that those indicators do not reflect the ambitious objectives outlined in the original development plans. As fiscal policies are on the top of the economic policies and methods, which some researchers hold responsible for economic success and failure, the main goal of this study is to investigate to what extent the fiscal policies in the Sultanate of Oman could play a positive role in accomplishing the developmental targets. To achieve the goals of the study, both quantitative and qualitative methods are utilized. Assessment and evaluation are used as secondary approaches and employ modern econometrics approaches as well as diagrammatic and tabular data representations.

Examining the currently adopted fiscal policies in three areas, taxation, expenditure, and policies dealing with planned budgetary deficit and public debt and employing OLS, ECM methods, the most important findings show a wide gap between actual and potential tax revenues; tax rates positively relate to FDI inflows suggesting that foreign investors do not necessarily respond to tax incentives and that other determinants lie behind the deterioration of FDI inflows; government investment expenditure can be associated with lower growth; a crowding-out phenomenon exists between public investment and private investment indicating that the government investment in projects acting as a substitute for private investment; there is a negative link between foreign debt and growth; finally, the fiscal deficit is influencing the stance of the balance of payments negatively. Moreover, to inspect whether a fiscal policy aiming at rationalizing government expenditure in the Sultanate of Oman's economy may diminish the growth of output; in other words, to check whether the disaggregated government expenditures Granger-cause output or vice versa, the contemporaneous relationship between disaggregated public expenditure and GDP/GNP was examined. The study deployed the Johansen cointegration test, the standard Granger causality test and the Granger causality test in the context of an ECM, to determine the long-run relationship as well as the directions and patterns of causality between the disaggregated public expenditure and GDP/GNP. Neither the empirical results obtained sustain the Wagnerian law which states that economic growth causes the growth of government expenditure, nor was it possible to conclude in the favour of the opposing Keynesian hypothesis. Thus, the results do not support the argument that changes in government expenditure tend to accelerate or slow GDP/GNP growth, suggesting a proposition that a shrinking in government expenditure, as a strategy to control the fiscal imbalances in the Omani economy, could be adopted.

Dedication

To my parents,
my wife
and
my children
Mohammed,
Sheikha
Mahmoud,
Ahmed
Abdul-Rahman
Abu-Baker
Al-Harith
And
Nizar

Who, with their support and encouragement this work has been completed and to whom
I am greatly indebted for ever.

Acknowledgments

My great thanks and gratitude to the person who has been patiently offering his valuable advices, encouragements and suggestions; in order to make this work possible, Professor Rodney Wilson. The one who has been at all times dealing with me as a friend before being a supervisor. I am indebted to him all my life. I am also grateful to the staff of the school for their generous help in many issues especially Dr. M. Zweiri, Teaching Associate and Mrs Barbara Farnworth, Postgraduate Secretary. My thanks also are extended to all teachers and postgraduate students in the school.

I have to express my grateful and gratitude to the staff of the main library and ITS Centre for their generous assistance and support. I take this opportunity also to extend my sincere thanks to my friends in Sultan Qaboos University: Dr. Rashid Al- Busaedi, Dr. Tariq Al- Nuaimi, Dr. Yahia Al- Ma'awali for their constant encouragements. A special thanks also due to my friend Dr. Hamid Othman. My thanks as well to the people in the Ministry of National Economy, the Central Bank of Oman, the Ministry of Finance and especially Isa Al- Abri, Yasir Al-Ta'ee, Abdullah Al-Saedi and Sulaiman Al-Fazari, for their help during my data collection procedures.

Finally, my warm thanks to all members of my family for their kind and generous assistance, support and patience particularly my esteemed parents, my respected wife and my beloved children.

Declaration and Copyrights

The material contained in this thesis is the work of the author alone and no part of it has previously been submitted for a degree at any university.

Khalifa Salim M. Al-Fazari

University of Durham

December 2006

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CHAPTER 1: INTRODUCTION

1.1 Research Problem

The state's calculated intervention in the economy is an issue accepted by researchers. It is true that as early as the 15th century, mercantilists had called for economic freedom where the state does not intervene in the society's economic affairs. It is also true that the classic economists had conceptualized that the state should play a marginal role in economic activities, leaving the market's internal mechanisms to regulate the economy. However, the Great Depression in the 1930s proved this type of thinking incorrect and the state's intervention has been adopted ever since. Starting from Keynes up to the modern economic thinkers, there is an agreement that the state's economic policies are essential for maintaining economic balance and equilibrium. The concept of economic planning has emerged at this stage and its significance in facing the 'economic cycles' stressed. To fulfil the overall goals of the economy and to achieve its full potential, the state has to follow the approach of economic planning in production, distribution and national economic sectors.

By adopting national economic and fiscal planning, numerous countries have achieved significant rates of development and growth in both the public and private sectors. However, success in planning involves a number of conditions, the most important of which is the adherence to the implementation of the outlined plans. Moreover, there is a need for constant follow-up procedures for detection of diversions from the original plan. Furthermore, it is necessary to evaluate the plans and their degree of success in improving economic variables such as gross national income, savings and investments. In addition, plans and policies lead to be modified to allow for change in the economy.



Within this framework, the state general budget emerges as an essential method in the fiscal planning's implementation process. Thus, the fiscal policies' goals should comply with the goals of the government's economic plan. This will also apply to monetary and commercial policies. Again, proper implementation of these policies would guarantee better results. Thus subsequent negative diversion in economic planning execution process could be avoided or reduced, by adopting appropriate control methods. Generally, it can be argued that although many of developing countries have adopted economic planning, they still suffer from several recurrent problems due to inappropriate fiscal policies. Good examples of the most troublesome of these problems exist in a massive public debt, chronic fiscal imbalances, .etc.

The Sultanate of Oman has adopted the economic planning approach since 1976, when successive five-year plans began. Since then, a high level of investment in infrastructure and social services has been achieved. Nonetheless, by having a look at the economic indicators in the overall economy and in certain sectors, a significant observation can be made; that these indicators do not reflect the ambitious objectives outlined in the original development plans. As examples, the surplus of 1.5% of GDP in the state general budget in 1981 turned in to a chronic deficit in spite of the huge rise in the price of crude oil; the significant increase in the public external debt; a deterioration in gross national savings as a ratio of GDP from 38% in 1981 to 22% in 2003; a worsening in the public capital formation, which diminished gradually from 15% to 10% by the end of 2003. These figures undoubtedly illustrate disequilibrium and a number of policy challenges for the Omani economy in an uncertain oil market: particularly where oil represent 40% of GDP, 75% of budgetary revenue and 92% of exports, when oil reserves are expected to run out in less than 17 years, and the daily production of the crude oil has deteriorated from 906 million barrels to less than 700 million barrels, which add, in fact, a situation which in itself has added another dimension to the existing fiscal challenges that face the policymakers in the Sultanate of Oman.

This also indicates that Oman is a rentier state, as state creates, distributes and allocates the resources in the economy. This may have an impact on the effectiveness of fiscal policy in term of productivity effectiveness. According to (Beblawi 1990), a 'rentier state' is a term in political science, and international relations theory used to classify such states which derive all or a substantial portion of their national revenues from the rent of indigenous resources to external clients. The term is most frequently applied to states which are rich in highly valued natural resources such as petroleum; however, it could also be applied to those nations which trade on their strategic resources (such as permitting the development of an important military base in their territory). Dependent as they are on this source of income, rentier states may generate rents externally by manipulating the global political and economic environment. Such manipulation may include monopolies, trading restrictions, and the solicitation of subsidies or aid in exchange for political influence.

1.2 Research Importance

The study gains its significance from the assumption that fiscal policy is on the top of the economic policies, which some researchers hold responsible for a lot of economic successes and failures. Moreover, the Omani state budget has been suffering from structural and chronic deficit coupled with deterioration in savings and investments rates and a high level of public debt. Furthermore, the Sultanate of Oman is in urgent need of solving the problems of economic planning due to a general resource scarcity, diminished oil reserves production weaknesses and finally, the urgent need of harmonising its fiscal policies with the Customs Union of the GCC countries.

1.3 Research Aim and Objectives

The main aim of this study is to investigate to what extent the fiscal policies in Sultanate of Oman could play a positive role in attaining the targets of the economic planning that were adopted in its different five-year plans from 1981 to 2002, on the one hand, and to what extent fiscal revenues contribute to the accomplishment of the planned rates of economic growth in the execution stage of the five-year plans on the

other. In other words, the study examines the role of fiscal policies in achieving the economic planning's goals. Secondly, it aims to identify the positive/negative diversions, if there are any, in the execution of economic planning and the factors behind these diversions, and to show the positive/negative impact of these diversions. Thirdly, it examines the impact of these policies on economic growth. Finally, it suggests appropriate solutions and the possibilities of reform, in a way that would increase the efficiency and effectiveness of economic planning.

The study focus is on two areas which the researcher presumes may affect the role of fiscal policies in the performance of the Omani economic planning. First, the focus is on visible or explicit concerns such as the negative diversions in the execution stage of the process of fiscal planning. Second, examines invisible or implicit cause such as the contradiction between the adopted fiscal policies and economic growth in the long run.

1.4 Research Questions

In order to achieve the aim of the study mentioned in the previous section, the research has to answer the following questions:

- How efficient are the currently adopted taxation policies such as the wide range of exemptions, tax incentives and tax holidays?
- Have the fiscal policies in Oman such as (i) government expenditure; (ii) the planned fiscal deficit; (iii) public debt programmes, succeeded / failed to adhere to the economic plans at the execution stage, and so could they / could they not act as efficient tools at this stage?
- Have the above mentioned fiscal policies caused a positive / negative impact on growth in the Omani economy?

- How large is the potential of tax policy, as a source of public revenue in Oman and how efficient is the currently adopted tax cut policy in attracting capital inflow?

1.5 Research Methodology

To clarify and deal with the research questions, the study explains and utilizes a number of economic and planning values. These include: the state general budget, fiscal instruments such public expenditure, public revenue, and public debt, the final fiscal account, economic planning, five-year plans, and planned values, and executed values. The research's major approach is the problem and solution strategy. This begins by identifying the problem's attributes and ends by suggesting a solution. Quantitative and qualitative methods both are adopted so as to achieve the goals of the study. Assessment and evaluation are used as secondary approaches. Modern econometrics approaches and diagrammatic and tabular data representations are both utilized to analyze the time series of the study to perform the quantitative and qualitative methods, which aims to locate association, correlation and relationship between related variables. Since this study aims to establishing the effectiveness of fiscal policies on economic growth, it models various fiscal policy instruments in relation to economic performance. This provides rationale in using quantitative methods.

In presenting the development in the Omani economy and in fiscal policy, descriptive method as part of qualitative analysis was used. Also, interpretative method, which is a qualitative method, used to interpret the results. Econometric approach will utilize Ordinary Least Squares method, Error Correction Model (ECM), Johansen Cointegration Test and Granger causality test which employs Vector Auto Regression techniques (VAR). Time series data from the Omani economy for the period from 1970-2003 are utilised.

1.6 Research Sources

The study depends on two types of resources: secondary and secondary ones. Working within a good university and using the internal facilities as well as local libraries, there was no shortage of secondary resources. Luckily enough, the researcher had already made an elaborate survey of the primary resources and come to the conclusion that there was enough information and statistical data for treating the study problem and hypothesis. These primary resources documents include Royal decrees, Central Bank of Oman's annual reports, ministerial decision, securities market plans, economic plans volumes, final fiscal accounts volumes and state budget volumes. All these documents are well classified and accessible to researchers.

More significantly, the researcher surveyed the huge amount of primary resources available at the Ministry of National Economy's Information and Publication Centre in Muscat. The centre holds almost all statistical data and economic indicators concerning the Sultanate. It has the following departments: information systems, technical support, geographical information and documentation and publication. Currently the centre has two significant types of database: first, the social and economic database for detailed economic and social information on the country since 1970; second, the geographical database, for information by regions. The centre's publications include the annual statistical books, monthly reports, special reports and facts and figures books. These databases are in good shape and accessible to researchers. The researcher has used these databases during his master's degree and so was well equipped to use it in this Ph.D. study. Furthermore, he has access to international primary resources documents such as those of the World Bank, the IMF and the U.N. in addition to another international data bases. It is worth noting here that because the Sultanate does not publish figures on the level of its external debt, details of the State General Reserve Fund (SGRF) and some other important data, the researcher has been forced to use publications of the World Bank, the IMF and the

U.N. As for all other available data, priority was given to the national publications mentioned earlier.

The intention in this study was to support the quantitative research with more qualitative analysis based on semi-structured interviews. In spite of the importance of using interviews as an instrument to better qualitative analysis, especially in those studies that raise some aspects associated with a critical issue such as economic reform in the national economy, the response from executives was really thwarting and disappointing.

The paucity of previous studies treating the study issue was one of major difficulties which faced the researcher. Another problem was the unavailability of consumer price index (CPI) which would have been helpful in dealing with nominal values. According to the Ministry of National Economy there are no CPI statistics available before the year 1990. And as they mentioned, even those figures are not accurate.

An additional difficulty is the delay of the publishing economic and fiscal statistics. The publication of a particular statistics takes from one to two years after the end of that year, particularly national accounts and public debt statistics. This delay has had an impact on the study period. As an instance, the process of collecting the required information and statistics started in 2004, the year I commenced my PhD. I tried to find updated statistics for 2003 and later. However, it was impossible not only from the Ministry of National Economy but from the World Bank and the IMF as well. Therefore, the time series utilized mostly were between 1971 and 2002, with a few from 2003. Nevertheless, using this period it was expected would give a better prediction picture because of the similarity in the stance of national economy; as the government revenues have soared following the jump in the value of a barrel of cured oil which has averred since 2003.

1.7 Research Plan

The study is divided into 8 chapters. The first chapter shows the framework of the study, such as its research problem, its importance, its aim and objectives, the questions to be raised, methodology, sources, and its overall plan. The second chapter presents an introduction to fiscal policy and public finance. It therefore, considers the essential issues that are associated with and affect the performance of fiscal policies such as: (i) the mechanism of fiscal policy; (ii) the efficiency of fiscal policy in developing countries; (iii) fiscal policy in oil exporting countries and harmonisation of fiscal policy in Customs Union of GCC; (iv) fiscal policy and economic growth; (v) fiscal policy and military expenditure; (vi) fiscal policy and fiscal deficit management; (vii) fiscal policy and public debt, and finally, (viii) coordination between fiscal and monetary policies. It discusses the importance of fiscal policy in the process of managing the economy and its role in achieving economic plans, the determinants of economic planning in developing countries including the Sultanate of Oman and the importance of economic and fiscal planning in the development process. Additionally, the chapter highlights the major role of the state national budget in countries heavily dependent on oil – investigating issues like public revenues, expenditure, deficit and public debt. The chapter also brings up a survey of the theoretical and literature review, and an evaluation of the previous studies in the topic. This will permit a firm analytical structure, which can be used as an evaluation tool in the empirical study and support the researcher with the required knowledge to be able to evaluate, judge, and criticize.

The purpose of the third chapter is to analyse the performance of the economic activities in the Sultanate in the light of the above mentioned overall macroeconomic solutions as a remedy. Moreover, to illustrate to what extent these policies contribute in boosting the national income and reducing the macroeconomic imbalances. In order to achieve its objectives, the chapter will show the main characteristics and economic sectors of the Omani economy. It also illustrates the role of the government in the economy, and the huge dependency of the economy on oil

revenues. Moreover, it analyses the role of some policies in reducing the dependency on oil revenues such as:

- The labour force sector and Omanization policy;
- The private sector and privatization policy;
- The diversification policy.

Furthermore, the chapter analyses the performance of the most important economic sectors such as crude oil, natural gas, agriculture, fisheries, mining and quarrying and industry. Finally, it demonstrates to what extent these macroeconomic policies succeeded in reducing the macroeconomic imbalances.

The aim of the fourth chapter is to examine the impact of government expenditures on output in the case of the Sultanate of Oman as well as other determinants and the causal relationship between government expenditure, disaggregated into investment and recurrent spending and output. The perception of the determinants of output will reveal the role of fiscal policies in the Omani economy in economic development and how such policies affect the diversification policy. The results of the causal relationship among fiscal policy variables and output will give an idea of the temporal precedence of the variables. Accordingly, if there exists of either a bi-directional or unidirectional causality between output and government expenditures in the Omani economy, that is to say causality running from government expenditures to output, this would further substantiate the assumption of the dominant role of fiscal policy in determining output. Hence, a policy aiming to control the growth of government spending might hinder the growth of output and, as a result, perhaps weaken the diversification policy as well. If however, the causality running from output to government expenditures or in case of the absence of causality, rationalizing the size of government, as a remedy to face the budgetary deficit, would be an appropriate fiscal instrument in the case of the Sultanate of Oman. OLS analysis and Granger bivariate causality test using vector autoregression (VAR) is utilized.

The fifth chapter aims to explore whether public investment is crowding-out private investment. In order to examine the existence of this, the chapter utilizes a model suggested as suitable for Oman. The significant negative effect of public investment will present substituting as well as complementary effect. Such findings will demonstrate the existence of a crowding-out phenomenon in the Omani economy. The crowding-out effects of public investment on private investment may suggest that the Government has invested in projects, which are substitutes for private investment as well as other additional influences. OLS analysis is utilized.

The sixth chapter presents more pressing issues concerning the overall fiscal balance. The chapter is divided into 3 main sections. The first section aims to present stylized facts about the fiscal policies adopted towards budgetary deficit and public debt in Oman. The second section studies the internal dimension of the effects of the fiscal deficit and public foreign debt. In this regard, the section will probe the contemporaneous relationship among the budgetary deficit and public foreign debt and the growth ratios of GNP and GNP per capita. A pairwise Granger causality test, to inspect the direction of causality between the changes of foreign public debt and budgetary deficit and GNP/GNP per capita growth, is utilized. The third section of the chapter considers the external dimension of the effects of budgetary deficit and public foreign debt. Namely, the section is dedicated to examining the effects of fiscal deficit on the Omani balance of payments. OLS analysis and Granger bivariate causality test using vector autoregression (VAR) are utilized.

The seventh chapter aims to answer two questions. What is the potential of taxation policy in the Sultanate of Oman? Are taxation policies, such as tax exemptions, tax holidays, .etc, which have been approved in order to attract capital flow effective in achieving their goal, particularly after the sharp cut in the corporation statutory tax rate from 50% to 12%? To this end the currently adopted taxation policies will be examined. In order to achieve this, the chapter is divided into two sections. The first aims to estimate tax potential and tax effort in the Omani economy. The second

investigates the effect of taxation policies on FDI flows within Oman. Estimations in this section will be divided into two parts: theoretical in the first part and empirical in the second. OLS analysis is utilized in this chapter.

Chapter eight concludes the study. The conclusion is divided into five main sections. The first section is the setting of the issue. The second presents a summary of the main findings as well as throwing light on the main concluding remarks generated on those findings. The third section deal with the several major conclusions that support the study's basic arguments. The fourth sets out the recommendations of the study. Finally, the fifth section suggests some vital and relevant topics for further review.

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CHAPTER 2: FISCAL POLICY IN THEORY AND PRACTICE

2.1 Introduction

The purposes of this chapter, “Fiscal Policy in Theory and Practice”, are: (i) to present some important issues associated with fiscal policy in practice; (ii) to discuss in brief the development of the theory of fiscal policy and survey the literature of the current study.

The chapter is divided into two main sections. The first section “An Introduction to Fiscal Policy and Public Finance” discusses some important fiscal policy issues; the second section “Studies on Fiscal Policy and Public Finance: A Survey” contains the theory of fiscal policy and reviewing the literature of the topic.

2.2 An Introduction to Fiscal Policy and Public Finance

This part of the chapter considers some aspects associated with fiscal policy mechanisms and how they work, their effectiveness and efficiency in general, and especially in developing countries and oil-producing and AGC countries, the difference between fiscal policy and fiscal instruments, as tools in planning economic policy goals. Moreover, the section discusses other significant issues associated with the performance of fiscal policy that can affect fiscal outcomes. Determining these issues can help in analysing the outcomes obtained as a result of adopting a particular fiscal policy, as well as helping to find the causes behind such consequences. These aspects usually can be seen either in developed or in developing countries. However, in most developing countries, such challenges can critically affect economic development in these countries. For instance, diversification is one of the most important solutions recommended to deal with fiscal policy sustainability issues in oil-producing countries. In order to attain a reasonable ratio of

diversification, a reconstruction of an effective tax system should be a priority, especially in countries that have weak industrial and agricultural sectors.

However, such a policy cannot be achieved without a rational enhancement of the tax system. Improving taxing systems requires, accordingly, reformative procedures such as broadening the tax base, reassessing incentives and exemptions and adopting a comprehensive taxation data base. In the same framework public expenditure is another aspect of fiscal policy. There are many other issues which can be reconsidered such as altering the pattern of public expenditure, the level of that expenditure in such areas as defence, debt service payments, unproductive spending, expenditure priorities and ensuring that specified activities are undertaken efficiently and effectively. There is the need to guarantee that capital expenditure, which adds to the productive capacity in the economy, is not being progressively forestalled by growth in revenue expenditures. There needs to be transparency in fiscal operations in order to improve productivity and efficiency, and in the setting expenditure priorities and ensuring that specified activities are undertaken efficiently and effectively. In this regard, a widespread and effective approach in the management of public expenditure requires a planned and effectual interaction of macroeconomic policies in managing government expenditure. Monetary policy is, with respect to other policies, the most important policy for integrating, coordinating, and interacting with fiscal policy to enhance fiscal outcomes. However, there is often inadequate and ineffective coordination between these policies, especially in developing countries and particularly in the treatment of budgetary deficits and management of public debt. Indeed, managing public debt is another crucial which considering fiscal policy, particularly, when the economy endures a resources leakage as a result of the existence of a high proportion of public debt as a ratio of GDP.

Another related issue, is the unenthusiastic influence of ‘crowding out’ that can occur when government activities affect the freedom of choice of investment decisions taken by the private sector. In this context, there are some issues from which ‘crowding out’ may arise such as public sector investment in infrastructure and

operations that are associated with public sector ownership and privatisation. In this connection, however, other questions arise such as, To what extent can the public ownership bring external economies in order to provide a supportive environment for the private enterprise? Are there any benefits to be gained purely by transferring public ownership to the private sector? Undoubtedly, such new dimensions in the process of economic policy formulation can complicate issues for fiscal policymakers.

Finally, in countries like AGCC (Bahrain, Kuwait, the Sultanate of Oman, Qatar, Saudi Arabia, and the United Arab Emirates) and in accordance with their newly adopted customs union, this issue can offer other dimensions for fiscal policymakers to consider. This is certainly the case in countries such as Oman and Bahrain, where oil revenue is less than that of the other countries and with a defiant shortage of reserves in the former.

Accordingly, this chapter will consider the following issues:

- The Mechanism of Fiscal Policy;
- Efficiency of Fiscal Policy in Developing Countries
- Fiscal Policy in Oil Exporting Countries;
- Fiscal Policy and Economic Growth;
- Fiscal Policy and Military Expenditure;
- Fiscal Policy and Deficit Management;
- Fiscal Policy and Public Debt; and
- Interaction between Fiscal and Monetary Policy.

2.2.1 The Mechanism of Fiscal Policy

2.2.1.1 The Rationale for Public Finance: Market Failure and the Importance of State Intervention

According to Thirlwall (1999: 219-220), allocating resources among competing uses is a central issue facing any economy. However, this concern is more important in developing countries than in developed countries. It is an insistent issue, where resources are limited and scarce and the basic needs of people are great. The advocate of free markets, Adam Smith, states that a completely free market supply and demand will create trade at a mutually agreed price. Thus there will be no unsatisfied buyers and sellers, since the decision making was completely decentralized and left to the market. According to changes in the perceived profitability of a commodity, markets prices work as “signals” to producers to supply more or less of that product.

Dorinnie (2003: 7) points out that the price mechanism concerned is a crucial factor, since throughout the economy it provides economic agents with information about the relative scarcity of a variety of goods. Signals derived from relative prices, in turn, allow agents to allocate resources efficiently. Accordingly, the issue of attaining an efficient allocation can be resolved at the individual level. The theorems of welfare economics state that, when the marginal utility of production equals the marginal cost- when consumers consume to the point where the marginal utility of consumption is equal to the price of a good, and producers produce to the point where the marginal cost of production is equal to price, resources will be optimally allocated.

Figure 2.1 illustrates this process. From this figure, if the curve I_1I_1 corresponds to society's indifference curve between two goods, A and B. It (I_1I_1 curve) represents the highest utility reachable, while X_1X_1 symbolizes the possibility curve between A and B of a country's production. Point 1, where I_1I_1 touch X_1X_1 , is the best possible point of resource allocation between the two goods, and all other points on the curve

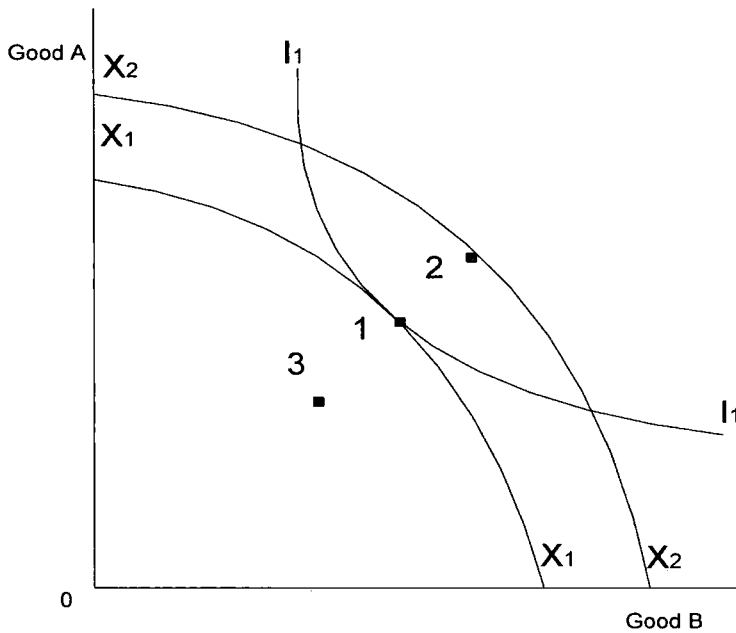
represent a lower level of utility. However, according to Kaldor (1972), the market, in addition to its allocation role also has a “creative function”. It acts through shifting the production possibility curve outward to the point X_2X_2 allowing the society to achieve higher level of utility. This shift presents the dynamic forces that lead to technical progress, innovation and ultimately investment. New opportunities for growth might be as important as that of the allocative function of market. They can be produced by the creative function of markets in the early stages of development.

However, there are very stringent conditions required for markets to achieve these allocative and creative functions. Therefore, in developing countries, price may not reflect marginal cost and because markets are also imperfect there may be some developmental goods which cannot be produced, cannot achieve their “creative” function. This is called “Market failures” (Thirlwall 1999: 220). Dorinnie (2003: 7-8) points out that, on the assumption that one of two goods (A and B) is a public good and the market mechanism is not capable of providing such a good, and bearing in mind that the market mechanism on its own is not able to rescue the economy from a situation of general disequilibrium or inefficiency (as depicted in point 3) due to market failure, in achieving the above-mentioned creative function, because of the incapability of the market mechanism in dealing with structural and cyclical problems, and the non-existence of a market for some goods and services, the economy will fail to attain all dimensions of efficiency. In such a situation there must be a remedy.

Thirlwall (1999: 220-221) states that these types of market failure require a planned intervention in the market by government. However, this interference should not supersede the market mechanism entirely. The crucial point to bear in mind is that although the experience of the former Soviet Union and countries of Eastern Europe in addition to other reasons, caused a planning disillusion and lead to the role of state coming under increased scrutiny, the experience of the developed and developing

countries since World War II assures the vital role of the state to play in economic development. This illusion in fact has occurred as a result of a number of factors:

Figure 2.1



- The collapse of the former state-planned Soviet Union and countries of Eastern Europe, as mentioned above;
- The failure of the state in many developing countries to deliver even the most essential public services and goods, law and order, property rights, social capital, education, health and transport;
- The collapse of the state in a number of countries, for example in Africa, in which the market was left to operate in an institutional vacuum and civil strife;
- Many countries have found themselves in fiscal crises associated with mounting expenditure on the welfare state in developed countries, and with huge enterprise deficit in developing counties.

Thirlwall (1999: 221) argues that, "There is a middle way between state-led, central planning on the one hand, and the minimal state espoused by extreme free-marketeers on the other. Bad experiences of planning in Eastern Europe should not blind us to the market failures mentioned earlier. The way forward in most developing countries must be a judicious mix of market capitalism combined with state intervention." Through such interference, the state can promote growth and development and provide the collective goods and services that correspond to the performance of its traditional role and functions. Undoubtedly, a basket of policies is required to achieve such objectives. Many of these policies rely on government expenditure to deal with the scarcity of resources, while others depend primarily on laws and regulations (Goode 1984: 2-3).

Drazen (2000: 309), indicated that redistribution of income was one of most important elements to any discussion on fiscal policy, particularly on the issue of taxation. On the expenditure side, it is true, many government programmes have strong redistributive implications.

2.2.1.2 Fiscal Policy and Fiscal Instruments

Vaish (1990: 506) states that according to Arthur Smithies "Fiscal policy is a policy under which government uses its expenditure and revenue programmes to produce desirable effects and avoid undesirable effects on the national income and employment". According to this, fiscal policy is a suitable tool in the hand of government that can be used to intervene* in an economy in order to manage economic activities and affect output and the rate of employment. Vaish (1990: 507) quotes Buehler as saying, "by fiscal policy is meant the use of public finance or expenditure, taxes, borrowing and financial administration to further our national economic objectives", In this definition, borrowing and financial administration have been merged as important elements in forming an active fiscal policy. Fiscal

* This issue has been discussed earlier in this chapter.

instruments are those financial procedures adopted by government in order to achieve the objectives of its fiscal policy. According to Goode (1984: 3-5), fiscal instruments can be categorized into two groups:

1. Instruments representing budgetary receipts such as:
 - Taxes Levying;
 - Fees and income from state property and enterprises;
 - Proceeds from the sale of land and other capital assets;
 - Grants from other governments and international institutions;
 - Borrowing;
 - Money creation through the coordination between both fiscal and monetary policies;
2. Instruments represent budgetary outlays such as:
 - Purchases of goods and services - exhaustive expenditure;
 - Transfer payments – nonexhaustive expenditure;
 - Lending including the acquisition of financial equities.

2.2.1.3 Importance of Fiscal Policy

The importance of fiscal policy emerged from the intensifying role of government, particularly after World War II. The intensification of the role of government in the economy dictated the wide usage of fiscal policy and fiscal instruments. According to Gerson (1998: 4), such instruments are used to achieve:

- a. A high rate of gross production;
- b. A Curb on inflation;
- c. Economic and social stability;
- d. Full employment;
- e. Economic equilibrium;
- f. Optimal allocation of resources;
- g. Redistribution of income and wealth and;

h. Rapid economic growth.

Vaish (1990: 506-511), stated that three reasons combine to prove the importance of using fiscal policy as a tool to achieve full employment of the resources and as a stabilizer. These are:

- (i) The ineffectiveness of monetary policy as an instrument to deal with unemployment in the Great Depression;
- (ii) The "new and developed economics theory" created by Keynes;
- (iii) The increasing role of the government in the economy in its use of public spending and taxation to raise the national income and output. Vaish points out that, fiscal instruments have become the major tools to influence economic activities. Through a combination of public expenditure and revenue, government can depress or stimulate the aggregate effective demand. Good examples of this are when an efficiently calculated budgetary deficit expands net national production as a result of the leakage from the aggregate income flow that occurs when the inflow of spending into the circular flow exceeds that of the revenues from taxes. On the contrary, if the inflow of aggregate public expenditure into the circular income flow is less than the tax leakage from the circular income flow, a budgetary surplus will trigger a deflationary effect on national income. Vaish (1990: 508) adds, however, the preceding illustration does not mean that the budgetary influence will be neutral on national income and economic activities, in the situation where there is a balanced budget.

In addition to this broad definition of the mechanism of fiscal policy, there are specific influences can occur as a result of adopting a particular fiscal instrument. Hemming et al. (2002: 4-5) point out that, according to the Keynesian approach, a fiscal expansion, through the multiplier, causes effects on aggregate demand and

GDP. This multiplier usually has two faces. If there is an increase in the public expenditure and that increase is matched by a tax increase, then a balanced budgetary multiplier will occur which is then exactly equal to one. The second face of the Keynesian multiplier happens when there is an increase in the public expenditure however, which is not matched by an increase in tax. The multiplier will then be greater than one. Accordingly, there will be a response of consumption to current income. Crowding-out through an induced change in exchange rates and interest rates is an extension of the preceding the simplest Keynesian model. This usually happens when government provides substitutes to those goods and services provided by the private sector*.

2.2.2 Efficiency of Fiscal Policy in Developing Countries

It is accepted that, dependant on a number of determinations, the efficiency and effectiveness of fiscal policy varies from country to country. These determinants can be categorized into several groups such as political factors, administrative factors, factors associated with the economic system that applies in the country, factors resultant from the limitation of economic resources and finally the rate of economic growth. Given that these factors affect the performance of fiscal policy and hence determinate its efficiency and effectiveness in achieving its targets, and given that some of them play either a weak or even negative role in forming and implementing fiscal policy in developing countries, the efficiency and effectiveness of fiscal policy in developing countries will undoubtedly be less than that in developed countries. According to Tanzi (2001), the shortage of well-educated and well-trained staff in public administration in developing countries, reduces their ability to construct an efficient fiscal policy. Tanzi has gone further ahead and argues that the shortage of the sufficient data in general and statistical data, in particular, also handicaps policymakers in assessing the impact of major changes to the tax system, which again contributes to creating an inefficient tax structure. Moreover, Tanzi points out that one of the difficult challenges that developing countries face when they attempt

* See Chapter 5 for more details.

to establish efficient tax systems is that the base for income tax is hard to calculate, since most of workers in these countries are usually employed in informal enterprises. They are rarely paid their wages regularly, and as a result their earnings fluctuate. In addition, such workers do not spend their earnings in large stores that record sales and maintain inventories, both of which ease the process of tax calculation.

No less a problem than tax policy is an inefficient public spending policy. Although increasing public spending both in developed and developing countries is a known economic phenomenon, in developing countries government expenditure is not typically benefit-cost analysed and thus, to a certain extent not effective. In addition, the growth ratio of such expenditure is mostly greater than that of national income growth. Kweka and Morrissey (1999: 2), assert that these developing countries have been experiencing increasing levels of public expenditure over time. Such increases can mostly be associated with rising fiscal deficits. These soaring deficits tend to have an adverse effect on growth. Moreover, it is clear that this will limit the ability of these countries to raise sufficient revenue to finance their higher levels of expenditure. Given that there are many shortcomings in managing and rationalizing fiscal resources in developing countries, and given that their governments wish to continue with their development programmes, these countries are forced to finance budgetary deficits through borrowing. Nevertheless, as mentioned by Goode (1984: 210-211) the poor debt management and unplanned and non benefit-cost analyzed borrowing in these countries, causes financial difficulties and economic instability which can be directly attributed to:

- Rising ratios of inflation;
- The high proportion of the budgetary revenues that must be allocated for debt service payment;
- A deterioration in the financial resources which inhibits the official lender from offering further resources. As a result, these countries are induced to seek finance from private creditors, which usually costs for more.

Consequently, a number of these countries are forced to seek debt relief. This is in fact no more than a mere temporary and weak "calmative" to the dilemma which has its own economic and even political and social disadvantages and drawbacks. Although, this applies to all developing countries, oil-producing countries too have their own unique difficulties with fiscal policy as will be discussed in the coming few lines.

2.2.3 Fiscal Policy in Oil Exporting Countries including AGCC

Over and above the challenges that face fiscal policymakers in developing countries and some oil-producing countries, in the economies of the latter their own policymakers may encounter exceptional and daunting challenges. Barnett and Ossowski (2002: 3) state that this challenges arise from three existing facts:

- Firstly, oil income is exhaustible, and its exhaustibility raises such critical and complex issues as sustainability and intergenerational resource allocation;
- Secondly, oil income is volatile and uncertain, and its volatility and uncertainty shape a kind of complicity in macroeconomic management and the process of fiscal planning. This arises from the difficulty that the policymakers face when trying to control or avoid transmitting oil volatility into their macroeconomic policies;
- Thirdly, oil revenue in these countries comes from abroad. This means that the overall fiscal balance can be driven by any changes in the oil revenues without a direct affect on domestic demand. So the fiscal use of these resources has its own significant consequences for the domestic economy.

It is apparent from the preceding discussion that the economies of oil-producing countries are usually subjected to a variety of problems such as fiscal imbalances, deteriorations in the positions of national savings and reserves and even frequent economic instability. However, from the point of view of the researcher, the major problem does not exist only in the issues that have been raised above by Barnett and

Ossowski. (2002). The major problem for these countries in fact originates from their huge reliance on oil income. And the more the economy relies on oil income, the greater the negative effect of oil fluctuation will be on that economy. It is worth mentioning that in order to reduce the level of reliance on oil sector, some of these countries have adopted various policies and strategies, the most important of which is diversification policy. Nevertheless, the ratio of oil income either to GDP or to the budgetary total revenue is still too high. This indicates that these countries have failed to develop a sufficient level of non-oil revenues to reduce their heavy dependence on the oil sector (Liuksila, et al. 1994: IV).

AGC countries, including the Sultanate of Oman, are a special case among the oil-producing countries or rentier states. Although the characteristics of the economies of Oman and AGC countries are similar to the other rentier states, formulation and implementation of fiscal policy with the former faces a number of challenges. According to Sassanpour (1996: 1), some of these challenges can be noted in inefficient policy responses to less favourable external conditions, rising rates of unemployment, growing fiscal imbalances and finally, steadily accumulating indebtedness. Moreover, the productivity in these countries has declined, which reduces per capita output and real wages. Furthermore, demographic changes have also been associated with increased trends of unemployment in rapidly expanding urban areas. On the contrary, investment levels have grown unassumingly. A wide consensus in the region has been noticed on the need to improve resource allocation and create institutional circumstances to accelerate growth and maintain internal and external stability, including further reducing fiscal deficits*, to reform the financial sector and to raise the levels of domestic savings and investment (Iqbal 2001: 8)

Zaidi (1990: 760) stated that, although AGC countries have made substantial economic progress in the last two decades, the oil sector has been extensively developed and diversified. Yet the economic activities of these economies are still heavily influenced by public expenditure, which is financed almost entirely by oil

* Fiscal deficit issue will be discussed later in this chapter.

revenues. The balance of payments remains characterized principally by the export earnings of petroleum sector and payments abroad for non-oil imports. The role of the non-oil sector in the economy is weak and the diversification policy is still needs great attention. The contribution of tax receipts also remains insignificant.

Moreover, the Doha Declaration on 1st of January 2003, issued by the Supreme council in its 23rd session in Qatar for the establishment of the Custom Union for the AGC states added other dimensions to the fiscal policies of these countries. In 1981, the Gulf countries established the Gulf Cooperation Council to enhance their cooperation in political, social, defence and economic areas.

In the economic area, the AGCC intend to establish the Gulf Economic Union, which is expected to function ultimately as a unified economy. In order to achieve this objective elimination of customs duties and other similar duties need to be adopted in addition to a harmonization of customs rules, other procedures and standards in accordance with, for example, those held by European organizations. These partnership agreements should encourage the finalization of a common external tariff and a harmonization of taxes on goods and services, for these are conventional sources for compensating for revenue less on customs duties. (Rahman 2001: 15-16) Furthermore, a customs union requires members to make institutional reforms that allow changes to be made to the common external tariff in response to pressures for liberalization by the private sector, and to establish the union's position in international trade negotiations. According to Abdulrahman (2001), the member countries had already removed quantitative restrictions on Gulf intraregional trade and industrial goods produced in one country and imported into another be treated as goods of national origin, confirming their movement free from customs duties. The delay in finalizing the common external tariff has constrained the member countries from implementing broad tax harmonization. The term "tax harmonization" has two meanings: (i) in its narrow sense it is concerned with removing tax barriers that may interrupt the flow of goods and services; (ii) in its broad sense, the term means the

harmonization of all fiscal policies that use tax measures as an important instrument to achieve the goals of economic integration. In order to build fiscal harmonization and explicitly that of a meaningful corporate taxation, the degree of future tax harmonization will depend on AGCC progress in attaining the different stages targeted toward the establishment of an economic union. It is not expected that the tax policies of member countries will be fully harmonized for a number of years for this has been the experience of other regional economic groupings. Hence, realising this objective is a very important factor in creating an efficient and interactive tax policy.

To sum up, it is expected that this will be a significant reduction in the level of currently applied tariffs and in the widespread tax exemptions which still exist in all AGC countries. A framework for the essential harmonisation of fiscal policy with commonly adopted external tariffs will also be required. In addition, there will be a need to develop other tax bases by levying new taxes, increasing current tax ratios and reducing in the applied tax exemption. Otherwise, some of these countries, including Sultanate of Oman, will not be able to avoid an unhelpful fiscal impact from trade liberalization.

2.2.4 Fiscal Policy and Economic Growth

Soubbotina (2004: 133) indicated that economic growth is a quantitative change or an expansion in a countries' economy, measured as a percentage increase in gross national product (GNP) or in gross domestic product (GDP). However, Soubbotina differentiates between two kinds of growth: an extensively growth that is achieved by using more resources; e.g. physical, human, or natural capital; and intensive growth which is usually achieved by an efficient and productive use of the same resources. When for instance, economic growth occurs as a result of a wide usage of labour, it does not result in per capita income growth. However, economic growth will usually result in higher per capita income and improvement in peoples' standard of living, if those resources, including labour, are used intensively and productively.

In the light of this, fiscal policy can, to a great extent, be seen as one of the economic policies which it can influence efficiency of resource allocation in an economy to achieve the planned level of economic growth. Based on many theoretical and empirical studies, fiscal policy can also be used to influence the economic growth generally. Taxation can reduce unproductive consumption and increases investment and productivity. The calculated public spending on infrastructure, investment and capital accumulation can also stimulate economic growth. According to Goode (1984: 231), it has become generally accepted that the government has to take responsibility for enhancing economic development and speeding up growth. He adds, "Theories of economic growth and development are linked with strategies for advancing them. These strategies, in turn, have implications for government finance policies and the stability of available fiscal policies and the suitability of available fiscal instruments"

Vaish (1990: 511) states that, in order to employ fiscal policy to accelerate the rate of growth, an efficient allocation of the fully employed resources to those activities which increase the level of production and effective capacity of the economy, is required. This can be achieved through full employment, real output that allocated to consumption is decreasing and that allocated to investment is increasing. However, the effect of fiscal policy variables on growth is a controversial issue. For examples, Deane and White (1981: 8-10) point out that, while Keynesians claim that both monetary and fiscal policies have a sustained and significant impact on employment and output, monetarists maintain that "there is a short run trade-off between inflation and unemployment which seems to disappear in the long run; that inflation and balance of payment deficits are primarily monetary phenomena; so that a restrictive fiscal policy without a reduction in the rate of monetary expansion cannot reduce the rate of inflation". Gerson (1998: 3), stated that, according to Endogenous growth models, numerous studies have been conducted to measure the impact of fiscal policy on output growth. The studies that were adopted on the expenditure side concluded that a high level of educational and health spending has a positive

correlation with output growth. In addition, studies conducted in other countries found a positive relationship between public expenditure on infrastructure and growth.

On the other hand, the causality between government expenditure and economic growth, that is to say, which one causes the other, has been a controversial issue. While the Keynesian hypothesis suggests that this causality runs from government expenditure to economic growth, Wagner's law (1890), proposed a different direction of causality*. According to Wagnerians, in the process of economic development, government expenditures tend to expand relative to national income. There are three reasons to justify such a hypothesis:

- (i) Economic development results in the spreading out of cultural and welfare expenditures;
- (i) Public functions substitute for private activity; and
- (i) Government intervention may possibly be needed to manage and finance natural monopolies. In other words, expanding government spending is seen as the product of economic development and not vice-versa (Bird 1971; Abu-Bader and Abu-Qarn 2003).

On the tax side, some empirical conclusions suggest that tax policy may have a significant impact on growth. However, other researchers such as Myles (2000: 141) found that the effect of tax on economic growth is very weak.

It is also worth noting that, according to Gerson (1998: 5), while labour and capital are exogenous determinants in the production function, in the neoclassical models, such as those of Swan and Solow, they are marked endogenous variables in the models of recent economists such as Romer, Lucas and Uzawa

* This issue will be discussed in full details in Chapter 4.

2.2.5 Fiscal Policy and Military Expenditure

According to Flemming (1997: 253), the major purpose of public expenditure is providing the public sector with infrastructure and services to support economic and social objectives. Flemming states that there are two extensive areas that public expenditure concerns. Firstly, there is a macroeconomic responsibility of insuring that a particular public expenditure is planned and implemented efficiently. Secondly, there is a macroeconomic concern, and here public expenditure forms a huge part of total expenditure. Public expenditure will appear large when it is used, according to the Keynesian framework, as a regulator of total demand and hence improves employment. The reverse will occur in the case of the Monetarists framework for controlling inflation rather than enhancing the rate of employment. Economies with large and persistent budgetary deficits have tended to experience greater fluctuations in output growth (Sentance 1998).

In fact, fiscal policymakers have to take into consideration several points while planning public spending. First, the priority, how much should be spent on each of public service sectors of education, health, defence...etc. Second, what economists call 'technical-efficiency'. This means achieving the planned objectives (outputs) by efficiently using and processing the resources (inputs). (Hulme 1997: 107). Third, 'Cost-Benefit' analysis. Although, in the case of public expenditure the analysis of 'Cost-Benefit' should go beyond financial profitability in attempting to secure a broader view of benefits and costs, analysis should be similar in importance to the appraisal, for instance, of an investment adopted by a private enterprise body. Accordingly, the society can achieve the maximum benefits from that expenditure. This framework should be applied to all public expenditure; particularly those occupy a high proportion of budgetary revenue, such as military spending.

Controlling military expenditure is one of the challenges that face fiscal policymakers in any country. It forms a large burden on total public expenditure and the national economy. It often increases significantly and squeezes the life out of the nation's resources. Collier and Hoeffler (2002: 4) state that countries spend 3.4% of

GDP on the military. However, averages can range hugely from 0.1% to 46%, and developing countries have the highest of these levels

According to Abu-Bader and Abu-Qarn (2003: 568-70), evidence has emerged in several studies which examined the relationship between military spending and economic growth which suggests mixed results. However, most of the cross-section growth regression studies have found negative effects from heavy military spending such as a negative influence on economic growth with either direct or indirect effects through its negative influence on national savings, its crowding-out of private investment, resource allocation, and redirecting resources from productive activities to the accumulation of armaments and the maintenance of sizeable military forces.*

Tanzi (1997) argues that in both developed and developing countries, excessive military expenditure causes a heavy fiscal burden. The latest research authenticates the potentially negative effects of military spending on growth. Moreover, there is a correlation between high levels of military expenditure, increased budgetary deficits and deterioration in public investment in these countries where large increases in military expenditures have occurred. Therefore such countries are advised to review military expenditures and recognize the benefits of fiscal savings.

2.2.6 Fiscal Policy and Fiscal Deficit Management

An inefficient fiscal deficit management is one of the issues that are associated with fiscal policy. The Keynesian framework of planned deficit ignored the long-run effects of debt accumulation. Paying no attention to such effects can cause difficulties in achieving efficient management. According to Poterba, et al (1999: 1-2), the growth and persistence of sustained budget deficit in developed and developing countries, during the last three decades is an essential matter for both researcher and fiscal policymakers to consider. In many nations this deficit can become chronic or structural. Accordingly, this type of deficit will form a stumbling

* It worth mentioning that judging the different views about the impact of military spending, fiscal deficit and public debt, on economic growth is beyond the scope of this chapter and will be discussed later in this study.

block inhabiting or reducing the efficiency of fiscal policies and strategies to achieving their goals. For instance, high ratios of fiscal deficit become incompatible with optimal fiscal strategy such as tax smoothing. In an attempt to explain why certain governments run large and constant rate of deficit; researchers have focused on the effects of the institutional and political factors in the fiscal outcomes (e.g. fiscal rules: fiscal deficit rules, public debt rules). These studies stress the economic effects of fiscal institutions, on the response of fiscal policy to aggregate economic shocks, the process of fiscal policy and the effects of budget rules on the outcome of fiscal policy. Budd, et al. (1989: 74-75), argue that whether fiscal policy targets a reduction in inflation rate or an increase in output, it should be flexible enough to respond effectively to expected economic shocks. Moreover, it is now accepted worldwide that the growth of fiscal deficit is an obstacle to economic growth, and can cause a variety of social and economic problems, such as increasing inflexibility of finances and causing a sense of unfairness between generations. Furthermore, it has been widely pointed out that massive outstanding debt leads to concern about the sustainability of fiscal policy. Agreeing with this, Chrystal and Thornton (1988: 48) state that many of economists, following the Keynesian Revolution in macroeconomics, argue that deficit spending at that time was required to achieve two of the nation's stated economic objectives. These were full employment and a high ratio of economic growth. Because of the reduction in lost output and because the economy could achieve a higher rate of growth, society was thought to benefit from a deficit spending policy. However, this view of deficit spending has been challenged more and more over the years. A great number of economists nowadays believe that deficit policy has little impact on employment and growth, particularly in the long run, and that first and foremost it results only in a redistribution of output, either as a transfer of resources from the private to the public sector or within the private sector. It is true to say now that support for this viewpoint is leading to a growing concern about the potentially harmful impact of deficit spending policy and large public debt.

For a panel of 45 developing countries, Adam and Bevan (2005) examined the relationship between fiscal deficits and growth. Based on a consistent treatment of

the government budget constraint, they found evidence of a weak positive effect at a deficit level of around 1.5% of GDP only.

Realistically, there are two means by which to shrink fiscal deficit. It can be done, either by cutting in the public expenditure or growing public revenues. Nonetheless, both choices are tricky and have their social and political liabilities. A rational and precautionary review of current and non-productive spending might be a suitable solution (Peng, et al. 2003). Moreover, the financing methods are complicated. Although, the negative impact of the methods used to finance deficit, to a great extent, depend on how that fiscal deficit covered, both methods of financing deficits can result in problems particularly, if deficits are persistent and structural. The external resources can increase the level of accumulation of the foreign debt and consequently increase debt service costs which itself will worsen the balance of payment position. Domestic deficit financing can have two results. When the deficit is financed by non-bank borrowing, this can lead to the crowding out problems. Indeed bank financing will increase domestic debt, which will increase debt service payments and lead straight again to a fiscal deficit. Yet fiscal deficit symbolize a challenge to fiscal policymakers in the full sense of the word, challenge (Zaglul 2000).

Jacobs et al.(2002: 1) pointed out that fiscal deficit has been at the forefront of macroeconomic adjustment policies in both developing and developed countries. Initially both categories of countries were blamed in large part for a variety of economic instabilities and symptoms that developing countries often suffer from such as indebtedness, high inflation, and poor investment and growth performance. In order to achieve an appropriate fiscal adjustment, during the last few years, policymakers in some countries have placed more stress on lowering the budgetary deficit as a policy to achieve growth, equity and as a redistribution strategy to limit the role of government in the economy. Moreover, fiscal deficits are also a major focal of the massive reform programmes which have been initiated in many developed and developing countries. In a word, finding a solution to deal with fiscal

deficit has become an unquestionable necessity, particularly for those countries suffering from chronic and structural fiscal deficit which are the root cause of their mounting.

2.2.7 Fiscal Policy and Public Debt Management

Given that the final results of adopting a deficit spending policy (an excessive expansionary fiscal policy), means an increase in public debt, many countries have been experiencing a variety of economic, political and social problems. Ever-increasing debt service payments, followed by the cancellation of many domestic development projects all of which their economic growth. As discussed earlier, there is wide agreement about the idea that budgetary deficit is undesirable and forces government to accumulate public debt. This accumulated debt, in addition to its negative impact on growth comprises an unfair burden on future generations and diminishes the credit rating of the country on international markets (Arreasa, et al. 1999). Nevertheless, it is possible that flows of foreign debt could stimulate growth and enhance the performance of economy and the stance of balance of payment. Nonetheless, this progress is mostly illusive and impermanent. Thirlwall (1999: 411-416) argues that although, there are many solutions for smoothing the impact of indebtedness such as debt rescheduling, repayments of loans in local currencies, debt buy-backs, debt swapping, debt service capping....etc., these methods mostly are not more than paregorics. "Debt in many ways is like a cancer, once it gets a grip on a country it is very hard to eradicate and may spread unless the rest of the economy can be reinforced to overcome it".

Developing country indebtedness crises with their all impacts are a good example of the exaggeration of the assumed advantages of fiscal deficit. They accompany inefficient spending programmes and corruption in these countries. It is worth noting that the problem of indebtedness applies even to middle-income countries and countries that are presumed to have a sustainable debt burden. As a solution, fiscal rules and efficient debt management can play a positive role in dealing with public

debt difficulties. There is a consensus in economic literature on rules versus discretion. There are alternative institutional arrangements that will allow a government to construct fiscal policy, entailing fiscal responsibility laws, fiscal rules and delegating fiscal decision-making to supranational authorities or advisory committees of experts. A country can successfully adopt fiscal responsibility law option by imposing:

- Constraints on borrowing, loan guarantees, debt service and amortization, primary deficits and current expenditures;
- Privatizing their public projects and services;
- Launching reform programmes and using the proceeds from the privatization of other assets and collateralizing resources to ensure debt are serviced;
- Imposing fixed ceilings on new borrowing, debt servicing, and the total stock of debt;
- Legislating to accommodate the expectations of the private sectors that may affect public debt procedures and activities. For instance, the current decisions of private individuals can be influenced by their expectations of future government actions. Examples of that their anticipations of future taxation affect current private investment and their expectation of future debt servicing capacity which may influence the decisions of the current holders of government bonds. By doing this committing, governments can achieve better policy outcomes. (Herrera 2005: 22-23)

Such a presentation of rules needs efficient public debt management. This management is a priority for countries holding a persistent fiscal deficit and public debt. Kappagoda (2001: 5-6) points out that institutional capacity is required for monitoring the volume and maturity structure of a country's external and domestic obligations, particularly with the elimination of capital controls, where the public and private sectors have the choice of raising financial resources from either the domestic or international capital markets. To a large extent, these changes draw a distinction

between domestic and external sovereign liabilities, and treat the management of total domestic and external debt in the public sector as an essential need. In the light of this, governments should set up rules for managing risk in their loan portfolio which represent the strategy adopted for public debt management in order to achieve the government stated objectives. Transparency and accountability are vital components of efficient debt management. Therefore, these guidelines or rules should be in the public domain. Moreover, a government borrowing plans should be published well in advance to remove distortions in the market and thus ensure equitable treatment for the different types of lenders.

Furthermore, both fiscal and monetary policies should play an effective role and be flexible enough in achieving the adopted rules that target controlling the high ratio of public debt and also mitigate against any internal and external shocks. According to Herrera (2005: 15), increased indebtedness together with rigid fiscal and monetary policies, can leave an economy vulnerable and with no capacity to absorb shocks. Finally, in at least three ways, fiscal policy can contribute to growth and moderate the impact of debt. Firstly, by choosing particular types of public expenditure, for instance, the government may choose to determine a specific growth pattern that affects its debt servicing capacity. Secondly, it can minimize the burden of taxation and subject its capacity to collect revenue. Thirdly, it can choose appropriate projects to finance a particular composition of public expenditures, for instance, the government may determine a specific growth pattern that affects its debt servicing capacity by reducing uncertainty about the sustainability of its economic policy framework. This can be achieved by optimising adequate coordination with its other chosen economic policy tools.

It is apparent that in addition to the importance of an effective debt management, there is a need for an efficient interaction between fiscal and monetary policies in managing the economy in general and public debt in particular. This importance is brought up briefly in the next section.

2.2.8 Interaction between Fiscal and Monetary Policy

Rothenberg (2005: 1) indicates that definitely, separation is one of the most remarkable features of the fiscal and monetary policymaking powers in the economy since it will undoubtedly help the economy avoid inflation. By not giving fiscal policymakers control over the money supply, governments can avoid paying off deficits by printing money. This is, in fact, a fatal trap which if left unrestrained, can result in severe hyperinflation. However, an excessive separation of economic policymaking powers is not without disadvantages. For instance, the independent actions of the central bank and the treasury may some times result in a combination of uncoordinated policies. This occurs because both fiscal and monetary policymaking powers attempt to pull the economy in opposite directions. The implications of such contradictory policies are usually critical, since they can potentially slow the economy's long term growth rate or cause unwanted and increasing trends in the rate of inflation.

Therefore, fiscal policy and monetary policy should be complementary. According to Vaish (1990: 512) both types of policy should work towards achieving the required rate of aggregate income and spending in the economy through:

- Influencing the size, composition and timing of public revenue and expenditure (fiscal policy);
- Influencing the money supply and the cost of borrowing funds from banks (monetary policy).

Purely theoretical perspectives suggest that the coordination may take several stances and vary in its level of efficiency. For instance, a coordinated contractionary policy mix would work best if used to reduce a positive output gap. Policy divergence, however, can produce mixed results depending on the relative strength of one policy's effects on another. By contrast, while a loose monetary/tight fiscal stance has been rarely observed empirically, a loose fiscal/tight monetary stance mostly raises the equilibrium point of real interest rates, potentially can result in crowding-

out effects on investment demand and moderating any expansionary attempts of the government. (Rothenberg 2005)

Stabilisation of the economy is another issue that depends on the interplay between the two policies. For example, in the case of inflation, combining the policy of budgetary surpluses with a dear money policy can procure the required economic stability. In contrast, by energizing a policy of budgetary deficit by a cheap money policy, a recovery from slump can be achieved quickly. (Vaish 1990: 512)

However, there is a crucial point to bear in mind. A policy of cheap money should be adopted cautiously as such a policy can cause economic reversals for example, inflation which can damage growth in a number of ways:

- When it is high, price signals within the economy, by which people decide what to buy, sell, make and invest in, becomes confused;
- High inflation also interacts with the tax system to discourage investment in the things that best help the economy to grow;
- The interaction of inflation with the tax system frequently leads to the over-taxation of company profits. There are several reasons for this, but probably the most important relates to the treatment of depreciation for tax purposes;
- In addition, the tax system and inflation together can create another undesirable result, the so-called "fiscal drag". As inflation erodes the value of money, employees often earn higher nominal wages, even though their buying power has not gone up at all (Reserve Bank of New Zealand 2001).

Another critical need for such an interaction between the two policies is an effective coordination in managing public debt. A calculated interplay can result in a better solution in dealing with public debt, either in its size or its components. There is always a need for an efficient public debt management. This exists in the effective and appropriate interaction between debt management and monetary and fiscal policies. For instance, Herrera(2005) states that,

“The short maturity of public debt implies that both the treasury and the central bank operate on the same end of the yield curve. This requires a skilful coordination of monetary policy and public debt management. Debt managers tend to shorten maturity during unstable times, which is a natural thing to do as the term spreads skyrocket. As the public debt shortens its maturity, it becomes, in the limit, a substitute for narrow money. In principle, the Central Bank could redeem the whole stock of public debt and absorb any excess liquidity via repo interventions. Hence, in theory, there could be an equilibrium situation without credit risk and with debt rolled over on a daily basis”(P. 23)

According to Sundararajan and Lay (2002: 6), although the structure of the ideal entity of debt management varies depending on country circumstances, one aspect of the more formal institutional framework can be seen in centralized organizational structure. There is a supportive trend towards providing a proper legal framework to support debt management and centralizing debt management activities as much as possible into one entity. As circumstances permitted, the countries surveyed took steps to separate the conduct of monetary policy from debt management during which time they continued to ensure that there was adequate coordination at the operational level between debt managers, and fiscal and monetary policy authorities, so that there was an appropriate sharing of information on the government’s liquidity flows, and that the two activities did not operate at cross-purposes in the financial markets.

Finally, Binay (2003: 1) pointed out that, with respect to monetary policy, fiscal policy, as a major tool, can influence the performance of monetary policy. The success of monetary policy can be affected by fiscal policy in several ways:

- (i) Through its effect on general confidence in monetary policy;
- (ii) Through short-run impacts on demand and finally; and
- (iii) Through modifying the long-term conditions for economic growth and low inflation. However, an unsustainable fiscal policy raises doubts about a monetary policy’s overall focus on low inflation and stable growth.

2.3 Studies on Fiscal Policy and Public Finance: A Survey

Although the idea of governments fiscal instruments as financial control mechanism have long been used, the theory of fiscal policy, as mentioned earlier, started being formulated from the beginning of the mercantilists period in the 16th and 17th centuries. In their deliberations, for instance, they mentioned the importance of granting subsidies to merchants and those involved in the process of exporting and of imposing tariffs on foreign goods so as to control the volume of imports. Following on, the classical school of economic theory began with the publication of the work of pioneers such as Adam Smith, David Ricardo, Thomas Robert Malthus and John Stuart Mill. Except Mill who emphasized the importance of society's role in economic activity, the paradigm of the invisible hand was clear in their work. However, notwithstanding that, many fiscal principles such as a balanced budget, the importance of taxation as an essential resource to the government budget and the negative impact of high interest rates on public debt were stressed in their thought. Accordingly, it is apparent that the fiscal policy had a role in the economic activities in both the mercantilist and the classical schools. However, that role was limited in the former and almost negative in the latter. (See Mill 1861; Smith 1933; Abdulwahid 1993)

The significant progress of the theory of fiscal policy came in the 1930s. The Great Depression in 1929 underlined the importance of interventionist fiscal policy. When the invisible hand had failed to create or retrieve the required equilibrium to the economy. Although the principles of interventionism was suggested by Maynard Keynes (1949) in his pioneering works, the most important of which is "The General Theory of Employment, Interest and Money", some writers such as Abdulwahid (1993), argue that its comprehensive acceptance was gained not only through Keynes's work itself. He suggests that there were other factors which helped to create such a wide acceptance for example:

- Numerous economic crises taking place at that time, the most important of which was the Great Depression as mentioned above;

- The evolution in the economic and political thought, particularly the ideology of the 'Welfare State' and the required direct intervention of the governments in the time of war; and
- The technological revolution, some giant technical projects of which needed direct intervention from governments to ensure adequate financial.

Theoretically, the Keynesian general principles purify the method of direct intervention in the economic activities, to be indirect taxation, public spending, deficits and public debt (Keynes 1949). However, it is worth noting that the hazards associate with such interventionism, as it described by Keynes, can be interpreted to create that huge role of government in the economy. In view of that, the size of government intervention may, in this case, create a sort of negative consequences in the economy. According to Flechter (1987), Keynes gave the justification for a wide governmental intervention in the economic activities. In addition, the objective of full employment that was sought by Keynesian policies overcame the labour market. He also added that the Keynesianism theory of interventionism took precedence over monetary policy. It emphasised fiscal policy despite the essential role of the former in the economic activities. This gave the Monetarists the chance to criticize Keynesianism despite the great contribution it has unquestionably given to economic theory and practice.

Having considered the importance of an interventionist policy and in the light of the previous discussion the following conclusions can be drawn:

- The wide spread, unconsidered intervention by government in the economy through its economic policies could definitely interrupt the economic activities and may have negative results. The researcher asks himself the following question;
- Do Keynesian principles suit the economies of developing countries, and if so to what extent.

As regards fiscal policy in developing countries, first of all, it worth noting that one of the difficulties experienced in reviewing the literature, was the lack of studies that dealt with the issue of the relationship between fiscal policies and economic planning. Another point is that, although there are many studies which have focused on fiscal policy issues in developing countries and oil-producing countries, only few can be identified combine between qualitative and quantitative methods. Given that there are only a few studies that adopted both qualitative and quantitative methods on the same topic, those subsequently mentioned are all quantitative. Moreover, without criticising others efforts, among the empirical studies those associated with the International Monetary Fund are the most numerous and valuable. Al-Hejry (1997: 17) states that this is because of the accessibility of the data from any of its members, and also because the IMF acquires such data from developing countries so as to prepare its officials for any consultations required by these countries.

Another noteworthy point should be declared. All these contributions are only concerned with a part or some of the elements of the current research problem. The International Monetary Fund issued a valuable book edited by Davis et al.(2003) entitled "Fiscal Policy Formulation and Implementation in Oil-Producing Countries". It is a collection of several papers which deals with a number of issues in the macroeconomic and fiscal policies of oil-producing countries. It contains a section addressed to analytical and operational aspects in the field of formulation of fiscal policy in these countries, in addition to the political factors and their effect on the processes of designing and execution of policy. It also encloses sections treating oil revenue and the issues that are associated with the strategies of fiscal rationalization, some institutional arrangements which can be considered by fiscal policymakers in dealing with oil revenue instability, and finally discusses an approach for designing policies for domestic pricing. Although this publication is one of the best references on the issue, because of its in-depth manner in treating the problems of designing and implementing fiscal policy in oil-producing countries, it is firstly, not primarily concerned with one country. Secondly, it leaves out a number of aspects of the issue,

such as the impact of some fiscal instruments like public spending and public debt, for instance, on economic growth. Definitely, such a conclusion will provide the fiscal policymakers with important information that can be used in the process of monitoring the behaviour of the adopted policies.

One of the most valuable studies and, to a great extent, closest, to the current study is that of Paul G. Clark titled, "Development Planning in East Africa". (Clark 1965). He studied the problems of economic planning in Kenya, Uganda and Tanzania. In this study, Clark discussed some issues associated with development planning, such as designing and implementing the plan and making comparisons between the planned and the implemented fiscal policies. Nevertheless, Clark did not concentrate on the macroeconomic impact of the fiscal instruments on economic planning performance and the growth of GDP. However, such a limitation is expected since the main objective of the study was to suggest a new and comprehensive framework as an alternative to the old one that had been adopted in those countries.

Goode (1984), adopted a study titled, "Government Finance in Developing Countries". In it, Goode examined a number of issues on government finance and fiscal policies in these countries. He dealt with making fiscal policies effective and efficient, the formulation and implementation of fiscal policy, budgeting, fiscal instruments, fiscal policies and growth. He further discussed some special fiscal problems in oil producing countries, fiscal policies and stabilization, fiscal policy and public debt. In his conclusion, Goode, stated that a number of considerations should be taken into account. One of which, for example, was that success in the process of fiscal policy execution depends not only on an efficient and effective public administration but also on the formulation of those policies which can be realistically adopted according to existing resources. He then recommends developing countries be creative in their thinking and form what he calls "Advisory Groups". He has high expectation of these in being a suitable remedy or tool for economic reform. To obtain his results, Goode used and analysed economic data collected from a group of

developing countries. Although his work is a valuable contribution to the problem, the preceding analysis of the macroeconomic causes and effects in the considered countries was general. In other words he generalized his conclusions.

Nashashibi (2002), has contributed to the issue with an important paper. In his study, Nashashibi discusses the issue of the performance of fiscal revenues in South Mediterranean Arab countries. Nashashibi examined the role of fiscal revenues in these countries and then compared them with selected middle income and Organisation for Economic Cooperation and Development (OECD) countries. He concluded that these revenues, over the past few years, had declined and that this trend was likely to continue due to their lack of mineral resources and trade liberalization. However, as he states, the value added tax, VAT, has proved to be highly successful, and that trade protection be decreased so that, consequently, these countries can be better integrated into the global economy. As a compensation for the loss of non-tax and customs receipts, reforms of income tax systems, domestic petroleum pricing schemes and flexible exchange rates can be adopted. However, from the point of view of the researcher, such reforms in Arab countries are not necessarily adequate, especially those related to exchange rates, due to the lack in the experience in these countries in controlling the exchange rate in particular, and monetary policy in general. The most important comment in his study is that all these countries have similar economic attributes and characteristics. For instance Syria, Lebanon and Jordan are not oil-producing countries.

Regarding AGC countries and Oman, among the several studies that dealt with the economic and fiscal systems in AGC countries in general and Oman in particular, no single study has been found to cover all the current study's aspects. However, there are some studies which cover some of the study issues. A few of these studies deal with Oman as an independent case, while others include Oman with the AGC countries.

The issue of fiscal deficit has been tackled by more than one study. Al Yousif (1993), made a study on the general budget deficit in the United Arab Emirates and discusses solutions. The study outlines the major developments in the general budget and concludes that the causes of deficit are the volatility or the ups and downs in the oil revenues and the increase in public expenditure on development. It makes the logical point by referring to weak efficiency in utilizing resources as a major reason behind the deficits. Al-Yousif's recommendation was to propose imposing new taxes. Other study by Al-Muneef (1995) is entitled "General Budget Deficit and Economic Reform in the AGCC". The study argues that the size and rate of deficit in these countries, including Oman, has reduced their fiscal revenues – thanks to the openness of the AGCC economies and the strong link between public budget deficits and deficits in the balance of payments. Furthermore, the study finds that the decline in revenues in the AGC countries was not accompanied by an appropriate decline in public expenditure. This study also recommends the adoption of economic and fiscal reform through imposing taxes and fees and privatizing some government activities. Though not necessarily agreeing with some of Al-Muneef's recommendations, creating a new tax base might be feasible. Moreover, I consider his study highly valuable because it makes a direct reference to Oman.

Al-Hejry (1997) is concerned with the causes and macroeconomic effects of the budget deficit in Oman during the period 1986-1990. Administrative setbacks, population growth, increasing wages and military expenditures and the nature of the oil industry (like price decline and production cost) are found to be the causes of these deficits. Consequently, these deficits have had a negative impact on national savings, national investments, private consumption, and the balance of payments. Al-Hejry, rightly, suggests a 3-pillar approach to coping with deficit: rationalizing public spending, improving the sources of financing and the diversification of the economy. Excellent as it is, Al-Hejry's thesis does not have any direct emphasis on issues relating to our subject matter i.e. the role of fiscal policies in economic planning performance.

The efforts towards diversification in Oman, have also been studied by Looney (1991), in a study titled, “An Economic Assessment of Oman's Industrial Diversification Efforts”. Most of the study is a theoretical and empirical analysis, with special focus on diversification efforts in the Omani industrial sector. Furthermore, the study is important because it fills a gap in published literature on diversification in Oman.

Al-Hina'e and Abdul-Ghafour (1996), investigated the taxation system in Oman and its impact on the economic activities and the gross national product. According to the study, taxation has a minimum impact on Omani economic activity and its gross national product. The two researchers, however, suggest an activation of current tax system in addition to imposing new taxes. Al-Mujrin and Razzaq (1995) have studied the structure of general revenues and ways to boost them in Kuwait. Again, the researchers call for a restructuring of Kuwait's economy, based on taxation and charges as an alternative to oil revenues. Al-Najar's study (1998), on the role of public expenditure in achieving economic stability, the case of Kuwait, also suggests imposition of taxation as a remedy for general budget deficit in Kuwait. To a great extent I agree with Al-Mujrin and Razzaq and Al-Najar on the imposition of new taxes. As such a policy can lead to a reduction in the current lavish consumption in AGC countries, if their resources are utilized efficiently and redirected to other productive sectors.

A more relevant study to this topic is conducted by Mansur and Treichel (1999). In their publication they discuss the current stance of the Omani economy, the issue of the size of the Omani oil reserves and the difficulties that may occur as a result of the expected exhaustion. They raise the challenges that stem from this problem. They also, illustrate the problems that the Omani economy faces as a result of adopting an expansionary fiscal policy. In addition, they demonstrated the threats that emanates from the adoption of the above mentioned policy, and how policymakers can overcome those problems. The paper used econometric methods to reach those

results and provides numerous economic indicators. Although, this paper made a significant contribution to the issue, it left out several fundamental issues such as the structure of public debt. Despite this is one of the issues that has originally a fiscal root. Yet it shows a harmony and exemplifies contradictions between the economic plans and the adopted fiscal policies in the execution stage. These issues are certainly, among which present significant causes of the fiscal challenges in the Omani economy.

In addition, Abdul-Ghafoor's study (1995), is a good contribution which focuses on public finance in the Sultanate. The study outlines the public finance administrations' legal, executive and control entities and functions, and investigates economic planning and the achievements of the development plans. The study concludes that public finance administration plays a leading role in accelerating development process through the use of the state's general budget. It also makes valuable recommendations for reducing deficit in the general budget. However, no attempt was made to provide an analysis of the fiscal policies themselves, a further limitation of this study.

Furthermore, used basic reconstructed tables and graphs in his analysis, Sakroon (2000) tackled fiscal policies with the aim of studying such policies from such different aspects as revenues, government expenditure, planned fiscal deficit and the causes and methods of finance. There is an emphasis on public debt, in addition to the study of policy adjustments in the Omani economy in general and in public finance in particular. Consumption oriented expenditure, investment in infrastructure and social development, poor attention to economic diversification policies and an ever increasing gap between revenues and public expenditure have ultimately led to deficits in the state general budget. The study rightly concludes that the deficit problem has been made worse by a lack of harmony between the general budget and the specific goals outlined in the development plans. Finally, the study recommends that fiscal policies should be presented to the Shura Council for approval, that current expenditure should be controlled, that administrative and fiscal reform should be

adopted in addition to a strong commitment and adherence to the goals of development plans while annual budgets are being prepared. Sakroon has distinguished himself by focusing on the role of finance resources, such as external and domestic borrowing, the negative economic effect of public and finally, the economic reform programmes in Sultanate of Oman, as directed by the World Bank and the IMF.

However, it worth noticing that in order to deal with the issue most of these studies that tackled the topic used reconstructed tables and graphs in representing the data. In this study a new technique based on several statistical and econometrics frameworks are employed. Moreover, all these studies tackle fiscal policy as a whole without enough attention and concentration at a particular issue. Therefore, in addition to the above studies a need for reviewing more sophisticated and specialized studies arises. Below is a discussion about such studies, sorted according to the issues investigated in this research.

Regarding the government expenditure impact on GDP growth, in traditional Keynesian macroeconomics, many kinds of public expenditures, even of a recurrent nature, can contribute positively to economic growth, as government spending raises aggregate demand, leading to increased output depending on the size and effectiveness of expenditure multipliers. The opposite view maintains that government consumption crowds out private investment, dampens economic stimulus in the short run and reduces investment accumulation in the long-run. Studies based on Endogenous growth models distinguish between productive and unproductive expenditures. This categorization implies that productive expenditures have a direct effect upon the rate of economic growth but that unproductive expenditure has an indirect or nil effect. Various studies have found that government investment spending is productive while government consumption is unproductive. However, dependant on the efficiency of government expenditure, these discriminate

between two cases. The impact can be positive if the expenditure policy is efficient and vice versa (see Barro 1990; Kweka and Morrissey 1999)

Nijkamp and Poor (2003) assessed the empirical evidence on the link between government and growth in a sample of 93 articles published between 1983 and 1998 in refereed journals. They considered five policy areas: general government consumption, tax rates, defence, education expenditures, and public infrastructure. According to their results, increases in the first three hamper growth, while increases in the last two boost growth. Support for this common prior was tested by meta-analysis. Several meta-analytical techniques were applied. On balance, the evidence for the expected impact of the selected fiscal policy variables on growth is rather weak. However, the commonly identified importance of education and infrastructure was confirmed. Moreover, the results of the studies appear sensitive to several research design parameters.

Barnett and Ossowski (2002), surveyed the theoretical and empirical literature on the effect of fiscal policy variables, government expenditure programmes and taxes on economic growth. According to them, in the light of the recent literature on Endogenous growth models, a number of studies have begun to examine empirically the impact of fiscal policy on output growth. However, most of these studies consider only aggregates, such as total expenditure or government revenues, as a percentage of GDP. Moreover, they often fail to identify the channels through which fiscal policy affects growth. Instead, Barnett and Ossowski adopt a disaggregated approach, looking at the impact of fiscal policy variables on labour productivity, investment productivity, and the cost of investment and labour.

Moreover, Fasano and Wang (2001), assert that the role of government spending in promoting economic growth remains an arguable issue in both industrialized and developing countries. Empirical studies have noted mixed results, with some finding a negligible role. They give some examples of these studies, Landau (1986), and

Anwar et al (1996). Others, such as Ahsan (1989); and Aschauer (1990); have concluded that this role is strong. Other studies have found that both the composition of public expenditure and the size of the government may also have an important effect on growth. An example of these is Tanzi (2000). Endogenous growth models have also confirmed that an increase in investment expenditure will either increase or retard economic growth depending on the size of the government while an increase in government consumption will slow down growth. (Barro 1990)

In their study, Folster and Henrekson (1999) argue that the relationship between government spending and growth is negative, while others such as Agell et al (1999) respond that it is not significant. The nature of the impact of public expenditure may also depend on its form. Barro (1990) states that productive spending contributes positively to growth but conversely for unproductive expenditures. Additionally, in an empirical work, it is hard to determine which particular items of expenditure should be categorized as productive or unproductive.

Moreover, it should be emphasized that some observers such as Fasano and Wang (2001: 3) indicate that the debate arises because government expenditure can influence growth through several channels with ambiguous results. According to them, the most obvious influence is the direct contribution of government development spending to physical investment, with the assumption that productive private investment expenditure is not being crowded out and government spending is not less efficient. They add:

“An increase in government expenditure on human investment formation could positively impact growth, even though this may not show up immediately because of longer gestation periods, while a similar increase in government spending on research and development could also enhance economic growth over the long run. Moreover, current expenditures could be positively associated with growth if they are, for instance, largely directed at maintaining the physical and investment stock, influencing technological change, and investing in law and order.”

In their investigation of the impact of public expenditures on economic growth, over a period of 32 years, Kweka and Morrissey (1999) used a sample of time series data

on Tanzania. The theoretical foundation of the study was based on Barro's model, in which expenditure is categorized into productive and unproductive categories. The former is expected to be growth-promoting and the latter growth-retarding. They formulated a simple growth accounting model in which total expenditure is disaggregated into expenditure on (physical) investment, consumption and human investment. They also accounted for foreign aid and exports as determinants of growth. They found that increased productive expenditure is associated with lower growth. Consumption expenditure relates negatively to growth, as anticipated, but appears to be associated with increased private consumption. There is evidence for a positive link between growth and exports, foreign aid and expenditure on human investment.

Many other studies have also established a link between government expenditure on infrastructure and growth, though here again the empirical link may be weakened by inefficient spending. On the other hand, evidence suggests that spending on defence and public order in many countries exceeds the minimum required for growth-enhancing political and social stability. In addition, many studies have found that high levels of educational and health achievements are positively correlated with output growth. If the link, however, between spending on education and health and output growth is weaker, this probably reflects poor allocation of public expenditure. (Barnett and Ossowski 2002: 3)

Finally, it worth mentioning that in an evaluation of the previous studies, three aspects can be raised:

- (i) None of these studies tackled the case of the Sultanate of Oman;
- (ii) Most of these studies are primarily based on data across countries in disregard to each country's uniqueness.

- (iii) While the findings are quite revealing, case-by-case studies in view of each country's unique characteristics remains an important issue (Were 2001: 9).

With regard to government expenditure impact on non-oil GDP growth, it worth emphasizing that most of the empirical studies that have tackled the effect of government size on non-oil GDP, approached the matter through either utilizing a causality test framework to inspect the causation between government size and non-oil GDP or regressing the latter on total or disaggregated government expenditure to recurrent spending and investment. Moreover, according to Fasano and Wang (2001: 6), there are only a few empirical studies on the impact of government expenditure on economic growth in GCC countries. In general, while some of these studies presented evidence of a positive influence, others found this relation became weak or inversely affected growth. According to these studies also, this strong relationship between the two variables appears to have weakened over the past decade.

Using a multivariate cointegration and error-correction model, Fasano and Wang (2001) investigated the short- and long-run relationship over the past two decades between fiscal expenditure policy and non-oil real GDP growth in AGC countries. According to their findings, despite the essential role of the government, the empirical results do not strongly support the view that increases in fiscal expenditures tend to slow or accelerate non-oil real growth in these countries.

Mansur and Treichel (1999) used cointegration analysis and time series from the Omani economy for the period from 1981-1997 to examine the relationship between the growth rate of total real expenditure, disaggregated into recurrent and investment expenditures, and non-oil real GDP growth. They found that non-oil growth could be explained by both government recurrent and investment expenditures.

Another study on Saudi Arabia by Kireyev (1998) tested the relationship between the changes in real government expenditure and growth in the non-oil private sector, using a pairwise Granger causality test from 1969—97. His results showed that real non-oil private GDP was strongly and positively correlated with government expenditure. He contended that an increase of 1 percent in total government expenditure generates about a 0.5 percent increase in the private sector's GDP growth. However, when the time period was subdivided through a Chow breakpoint test into two sub-periods, 1969-82 and 1983-97, the results from the cointegration test showed no clear statistical evidence of a relationship between the two variables during the second sub-period, suggesting increasing autonomy of the non-oil economy (Fasano and Wang 2001: 7).

To investigate the intertemporal interactions between the share of government spending in GDP and the growth rate of per capita real GDP, Ghali (1997) utilized a time series analysis with particular attention given to the causal pattern in the context of a vector autoregressive model. His analysis, applied to data from Saudi Arabia, found no consistent evidence that changes in government spending have an influence on per capita real output growth. According to his findings, the flow of causality seems to run in the other direction from output growth to government spending. The study concluded that, “an important implication of the analysis for the conduct of public policy in Saudi Arabia is that the government can face its deficit by shrinking its size and limiting its role in the economy.”

In the United Arab Emirates, using a cointegration and error-correction model, Ghali and Al-Shamsi (1997) inspected the causal relation between government expenditure, broken into recurrent and investment, and total GDP. They utilized data from 1973-1995. Their findings supported a long-run equilibrium relationship between these variables. While in the short run, government investment has a positive and significant effect on economic growth, government consumption has a

negative and insignificant one. Also, causality tests showed that the causation runs from a change in government spending to output growth. (Fasano and Wang 2001).

Table 2.1: Summary of Empirical Studies on government expenditure impact on GDP growth

AUTHOR(S)	SAMPLE	METHOD	EXPLANATORY VARIABLE	RESULTS
Kneller <i>et al</i> (1998)	Panel 22 OECD (1970-95)	OLS, GLS	Investment/GDP, other and (non)productive expenditures, other and (non)distortionary taxes	Productive expenditure enhances growth, but non-productive spending does not
Devarajan and Vinaya (1993)	Panel of 14 developed countries (1970-1990)	OLS, 5-year Moving Average	various functional types of expenditure (health, education, transport, etc)	Health, transport and communication have significant positive effect; education and defence a negative impact.
Hsieh and Lai (1994)	Time series G7 (1885-1987)	VAR	Total expenditure/GDP, private investment/GDP	No uniform causality. Spending affects growth marginally. Some support Private investment enhances growth
Lin (1994)	Panel of 62 countries: 1960-85	OLS, 2 and 3SLS	Share of investment, government expenditure in GDP, growth rate of labour force; exports, foreign direct investment share in GDP.	Mixed results. Non-productive spending insignificant impact on ADC, but significant positive on LDC.
Barro (1991)	Cross-section (98 countries): 1960-85	OLS	Government consumption exp.	Government consumption expenditure has a significant negative effect
Alexander (1990)	13 countries (OECD) panel (1959-84)	OLS	government consumption expenditure, gross fixed capital formation, deficits, exports,	Growth of government spending, and inflation have significant negative impact on growth.
Landau (1983), (1986)	Panel of 27 LDCs	OLS	various types of government expenditure.	Government consumption expenditure a negative impact.
Kormendi and Meguire (1985)	Panel of 47 countries	OLS	Government consumption	government consumption has no significant effect

Source: (Kweka and Morrissey 1999: 15)

Evaluating the aforementioned studies, two substantial observations can be made from the revision. First, most of researchers have focused only on two types of government expenditures (investment and recurrent). It is of importance to examine the effect of foreign debt service payments on the growth rate, as well as participation and support expenditure. Second, the two studies that tackled the issue in the Sultanate's economy used short periods.

In the field of the crowding-out effect of public investment on private investment, Atukeren (2005) conducted a study examining the connection between public and private investment by using Granger causality and cointegration tests on a sample of 25 developing countries. The results were further analysed in assigning the dependent variable and the explanatory variables are various components of Gwartney and Lawson's (2004). Using this approach, Atukeren found that "the greater the share of government involvement in an economy, the lower the trade openness; the more restrictions there are on the use of foreign currencies, and the more stable and developed the macro and monetary environment is, the higher the likelihood that public investments may crowd-out private investments. The model correctly predicted 10 out of 11 cases of crowding-out and 13 out of 14 cases of non-crowding-out"

Agenor et al.(2005) examined the impact of public infrastructure on private capital formation in three countries of the Middle East and North Africa: Egypt, Jordan, and Tunisia. Their empirical framework was based on a VAR model that accounts for flows and quality-adjusted stocks of public infrastructure, private investment, changes in output, private sector credit, and the real exchange rate. The utilized impulse response analysis proposed that public infrastructure has both "flow" and "stock" effects on private investment in Egypt, but only a "stock" effect in Jordan and Tunisia. However, these effects were small and short-lived, revealing the unfavourable environment for private investment in the countries studied. Their recommendations were: (i) that reducing unproductive public capital expenditure and

improving quality must be accompanied by reforms aimed at limiting the investment to infrastructure capital that crowd-in the private sector; (ii) that other improvements to the environment in which domestic investments operate are crucial to stimulate growth and job creation in the region.

Bende and Slater (2003) conducted a study which presents an empirical assessment of the factors that have stimulated/deterred private investment in ASEAN* economies during the past three decades. Their results for the short-run suggest that output growth and public investment were the leading determinants of private investment, while those for the long-run suggest FDI as an additional dominant determinant. The monetary policy variables were on the other hand less effective determinants. Moreover, output growth and FDI were implicit crowding-in factors and public investment was an effective crowding-out factor. The other determinants reported both crowding-in and crowding-out effects. While external indebtedness generated long-run crowding-out effects, there is limited evidence to suggest that it did so in the short-run.

Using a dynamic model and utilizing multivariate cointegration techniques to test short-run and long-run behaviour of private and public investment and the rate of economic growth in Pakistan, Hyder (2002) provides an insightful means for economic managers aiming at determination of an appropriate size for the public sector by examining whether the crowding-out hypothesis holds true for Pakistan or not. He developed a vector error-correction model, useful for probing long run effects as well as the short run dynamics, of public investment on private investment and economic growth for the period 1964-2001. The results of the vector error correction model and impulse response analysis show a positive long run correlation between public and private investment. This implies the non-existence of crowding out phenomenon in Pakistan.

* The Association of South East Asian Nations

Based on the impulse response analysis associated with vector auto-regressive (VAR) estimates, Pereira (2001) empirically investigated the effects of public investment on the evolution of private investment in the United States. His results suggest that at the aggregate level, public investment crowds-in private investment. However, decomposing private investment shows that the crowding-in impact of public investment was marginal for structures and strong for equipment. Other findings were: (i) public investment marginally crowds-out private investment in information equipment; (ii) crowding-in effects on private equipment is principally strong in the cases of industrial equipment and transportation equipment. Moreover, Pereira found that the effects of different types of public investment on the different types of private investment propose that in about one third of the cases, public investment variables crowd-out private sector variables. Furthermore, the aggregate results often hide a wide diversity of effects.

Utilizing a modified Granger causality test, Looney (1995) found that an increase in public infrastructure investment, in the manufacturing sector of Pakistan, did not play a significant role in inspiring private investment.

In a study to answer the question “Does higher public capital accumulation crowding-out private investment?” Aschauer (1989b) found that an increase in public capital accumulation raises the national investment rate above the level chosen by rational agents and induces an *ex ante* crowding-out investment. Nevertheless, a higher public capital stock also raises the return to private capital, which crowds-in private capital accumulation.

In the light of the aforementioned literature revision, one can conclude that the literature on the impact of public investments on private investments contains mixed results. While some findings show crowding-in for certain countries, some others show crowding-out in other countries. Every now and then, even for the same

country, there are conflicting results coming from different studies, which use different methods and analyse different time periods (Atukeren 2005: 6).

Two substantial observations can be made from the review of this literature. Firstly, that most researchers have focused on only one variable of the crowding-out phenomenon. Secondly, for concluding against crowding-out, it is essential that one should also corroborate the existence of a significant relationship between private investment and the credit flow to the private sector from the banking system, particularly, in the case of Oman. This line of research currently remains unexplored and thereby imposes a limit on the usefulness of the results obtained earlier (Hyder 2002). This will be considered in this study.

As regard to the fiscal deficit and public foreign debt impact on GNP and GNP per capita, many empirical studies have tried to check whether an expansionary fiscal policy shows a positive effect on the growth rate of an economy. Perotti (1999), for example, demonstrates that low levels of debt or deficit are likely to generate positive effects of public expenditure shocks, while high levels of public debt lead to negative effects. Giavazzi and Pagano (1990) conducted a study to examine the fiscal consolidations in Denmark and Ireland in the 1980s. They showed that in these countries a severe cut in public deficits led to a sharp increase in private consumption. In addition to these two countries, Alesina and Perotti (1995) considered Belgium, Canada, Italy, Portugal and Sweden over the time period from the mid 1980s to the beginning of the 1990s. They reached a similar conclusion. In each of these countries the primary deficit was strongly reduced while the growth rate of private consumption was positive and larger than in the years prior to the adjustment (Gong, et al. 2001: 3).

To analyse the Japanese fiscal policy, principally from the viewpoint of local governments' behaviour during the fiscal reconstruction movement in Japan, Doi (2004) investigated the impact of local government behaviour on public debt and

explored fiscal difficulties of heavy dependency on debt finance - in particular, borrowing for local allocation tax grants rapidly increased - The soft budget problem with borrowing from the special account for the grants, was a typical one of representative problem for Japan in the 1990s.

Examining the relationship between fiscal deficits and growth for a panel of 45 developing countries, Adam and Bevan (2001) found evidence of a threshold effect at a level of deficit around 1.5% of GDP. While there appears to be a growth payoff to reducing deficits to this level, this effect disappears or reverses itself for further fiscal contraction. Moreover, the study revealed evidence of interaction influences between deficits and debt stocks, with high debt stocks exacerbating the adverse outcomes of high deficits.

To find out whether public deficit and public debt have consequences for real variables in the economy, Gong et al. (2001) studied the relationship between fiscal policy and economic performance of several core countries in the EU. The background of their empirical study was a growth model that provided them with predictions on the relationship between these countries' fiscal policy and economic growth. In a first step they used Granger causality tests to analyze empirically whether some of the implications of their model were compatible with the data. In a second step, they investigated whether the fiscal policies of these states had been sustainable. Given this information, they then pursued the question of whether differences in fiscal positions had consequences flowing from their empirical tests in step one. Finally, they checked whether the impact of the public deficit ratio depends on the magnitude of the debt ratio. They noted that the Granger causality tests suggested no unambiguous results concerning the effects of public deficit and public debt on GDP when studying single countries. In addition, there were hints, they said, that countries which seem to have highly unsustainable fiscal policies are more likely to experience negative effects in their public debt. Moreover, when pooling the data they obtained mostly unambiguous results. In this case public debt and public deficit

both exerted a negative impact on GDP. The same held for the crowding-out effect. Furthermore, when they estimated a nonlinear equation for the pooled data set with GDP as the dependent variable, explained by its own lagged values and by the public deficit-GDP ratio multiplied by the public debt-GDP ratio, showed that for small values of the debt-GDP ratio public deficits have a stimulating effect on GDP. For higher debt-GDP levels an increase in public deficits goes along with a decrease in GDP as predicted by their model.

To conclude, according to the evaluation of the aforementioned studies, two aspects can be raised: (i) none of these studies tackled the case in Oman; (ii) most of these studies are primarily based on data across countries without regard to each country's uniqueness. While the findings are quite revealing, case-by-case studies of each country's unique characteristics remains an important issue (Were 2001: 9).

On the causation relationship between government expenditure and GNP, the causal link between public expenditure and national income in the public finance literature was first inspected by Singh and Sahni (1984) and Sahni and Singh (1984). These two studies, which applied the Granger causality test to public expenditure and national income, were each confined to one country and utilized causality tests using annual data for Canada and India respectively covering a 30 year period from 1950 to 1981. Causality studies of the relationship between public expenditure and national income growth, since then, have had a fundamental interest in modern public expenditure analysis, for both developed and developing countries. The results obtained were mixed. (Demirbas 1999: 13)

To examine the relationship between public expenditure and a number of socio-economic variables, including the level of income, in Kuwait, Burney and Al-Mussallam (1999) derives a general form of the public expenditure function, which they estimated using the ordinary least square method. The analysis was based on time series data for the period from 1969-95. Their findings did not lend support to

the validity of the Wagnerian law in Kuwait. Economic structure, the degree of economic openness and financial development were some of the main factors that were found to have contributed to the growth in public expenditure.

Using the Engle and Granger cointegration test, the Granger causality test and Turkish time series aggregate data for the period from 1950-1990 to investigate the existence of a long-run relationship between public expenditure and GNP (Wagner's Law), Demirbas (1999) used data for Turkey. The study results found no empirical support for Wagner's Law in Turkey.

Koop and Poirier (1995) examined Wagner's hypothesis that asserts "as a country's level of development increases so does the relative size of its public sector". Based on data from 86 countries, Koop examined the empirical validity of Wagner's hypothesis. His study employed a model occurrence framework to determine whether Wagner's hypothesis holds for the countries in which it is expected to. The results were discouraging for believers in Wagner's hypothesis. According to Koop, "Wagner's hypothesis is supported in only a third of the countries and its variable occurrence is not explained well in terms of *a priori* applicability conditions either in sample or out of sample".

Holmes and Hutton (1990), adopted a study utilizing a multiple rank F test methodology in an investigation of the *prima facie* causal relationship between public expenditure and income. Employing this test the Wagnerian law was rejected and conventional Keynesian theory accepted.

In an assessment of the preceding studies, two separately reasons raise the need to study the issue in the Sultanate's economy: (i) none of these studies has tackled the case of Oman; (ii) most of these studies are primarily based on data across countries in disregard to each country's uniqueness. As mentioned earlier, while the findings

are quite revealing, case-by-case studies in view of each country's unique characteristics remains an important issue (Were 2001: 9).

Finally, in the field of the relationship between fiscal deficit and balance of payment deficit or the “twin deficit phenomenon”, using an unconstrained vector autoregression, Enders and Lee (1990), conducted a study to develop a two-country micro-theoretic model consistent with the Ricardian equivalence hypothesis. Particularly, tax increases used to retire government debt will not affect private spending or the current account balance. However, increases in government spending, regardless of the means of finance, can be expected to induce a current account deficit. Enders and Lee show some patterns in recent U.S. data which appear to be inconsistent with the Ricardian equivalence hypothesis. Rigorous testing of the model, however, does not allow them to reject the independence of the record federal government budget and current account deficits.

Corsetti and Muller (2005), reconsidered the twin deficit hypothesis, which states that fiscal shocks generate budget deficits and also worsen external trade, both from a theoretical point of view and by analyzing data for 4 countries: Australia, Canada, the UK and the US. First, they assessed the joint dynamics of budget and trade deficits along the business cycle, uncovering a strikingly recurrent S-shaped relationship between the two. Their correlation results were negative, suggesting twin divergence. As the overall correlation is probably controlled by cyclical factors, their observation cannot rule out the possibility that government spending expansions and/or tax cuts may cause trade deficits. Accordingly, they reconsidered the transmission of government expenditure in a standard two-country model. Their results indicated that openness and the persistence of fiscal shocks are major determinants of the magnitude of the response of the trade balance to fiscal shocks. Another important result was that for a given persistence of a fiscal shock, the closer an economy, the larger the crowding-out effect on investment, and the smaller the deterioration of the trade balance. Moreover, they took this insight to the data and

inspected the transmission of fiscal shocks in a VAR framework in the four countries in their sample. The empirical findings tend to support the following:

- In the US and Australia, which are relatively less open than Canada and the UK, and where government spending shocks are less persistent, they found that the external impact of fiscal policy is rather limited. Instead, private investment reacts considerably.
- The reverse is true for Canada and the UK. The results indicated that fiscal expansion in the US is found to have on average a negligible effect on the country's trade balance.

Alkswani (2002) used annual data covering the period 1970-1999 to examine the relationship between budget and trade deficits in the Saudi economy. The empirical investigations have shown that budget and trade deficits in the Saudi economy are cointegrated. Applying the ECM and the Johansen cointegration, Alkswani found that there is a short and long-run relationship between the two deficits. However, the Granger causality test revealed that trade deficit causes budget deficit. According to his findings, the two deficits are positively linked, but the direction of causality is from trade deficit to budget deficit. This suggests that neither the Ricardian equivalence nor the Keynesian proposition is valid.

Vamvoukas (1999) conducted a study to examine the relationship between budget and trade deficits in a small open economy using annual data. His main purpose was to test empirically the validity and rationale of the Keynesian proposition and the Ricardian equivalence hypothesis. The econometric methodology was based on cointegration analysis, error-correction modelling and Granger trivariate causality. The ECM empirical findings suggested that budget deficit has short- and long-run positive and significant causal effects on trade deficit.

Kawai and Maccini (1995) analyzed the effects on a small open economy of anticipated switches in the method of fiscal deficit financing. Their major finding was that fiscal deficits today will be associated with current account deficits/surpluses today if tax finance (money finance) is expected principally to be used to close the deficits in the future. The case of "twin deficits" arises in small open economies when the public anticipates that the government will use higher taxes, whether lump sum or distortionary, in the future to close fiscal deficits. On the other hand, current account surpluses tend to accompany fiscal deficits when the public anticipates that the government will encourage money growth and thus generate higher inflation in the future to finance the deficits. The latter result may be called "unpleasant fiscal arithmetic" due to the unconventional effects of the fiscal deficit. The case of "twin deficits" or "unpleasant fiscal arithmetic" occurs because of the finite horizon postulation with regard to consumer behavior at a constant population.

Finally, an evaluation of the literature review shows that none of these studies considered the Omani position. Moreover, those studies that were based on data across countries disregarded these country's uniqueness and hence, as indicated previously, case-by-case studies in view of each country's unique characteristics remains an important issue (Were 2001: 9).

Regarding tax potential and effort, Eltony, N (2002)'s study of 16 Arab Countries between 1994-2000, makes use of pooled time-series and cross-sectional country data to examine the determinants of the tax effort. The results suggest that in these countries, the main determinants of the tax revenue share in GDP are the per capita income, the shares of agriculture and mining in GDP. Other variables that are also important are the shares of exports, imports and outstanding foreign debts. Furthermore, country-specific factors appear to be important determinants of tax share, e.g., the political system; attitudes toward government; the quality of tax administration and other institutions of the government. The results for the tax effort

index showed that for Arab countries that are facing a budget deficit, especially those of the GCC, there is a room to increase their tax revenues by reforming their tax systems.

Piancastelli (2001) estimated the tax effort index for a sample of 75 countries for the period 1985/95. The results were then compared with previous studies encompassing different periods over the last 30 years. According to the results, the most consistent explanatory variables of the tax ratio were per capita income, the ratio of trade to GDP, and the share of agriculture in GDP of the product of the agricultural sector, while the ratio of mining output to GDP, and the ratio of quasi-money to GDP, were not significant in the 1985/95 period.

Incorporating a sample of 83 developing countries over the period 1978-88, Tanzi(1992) extended his analysis. His findings suggested that the relationship between tax share and per capita income is weakened. That is to say, the hypotheses that other factors, such as macroeconomic instability, the need to service debt and the changing structure of the economy, have become more important determinants. He estimated an alternative specification that relates the tax share in GDP to the agriculture share in GDP, the share of imports in GDP, the foreign debt share in GDP, and per capita income. The results showed that the share of agriculture in GDP is significantly and inversely related to the tax share and its explanatory power is greater than per capita income. He also found that to import share and the debt share are essential determinants of the tax share. (Eltony 2002: 6)

Using a sample of 86 developing countries, Tanzi (1987) examined how the share of tax revenue in GDP could be related to the logarithm of per capita income. He found a positive and significant relationship between these two variables.

Tait and Gratz (1979) used a sample of 47 developing countries with data averaged over the period of 1972-1976. Compared to the earlier studies, they found stability in

the results. Their measure of the tax effort indices also produced similar results to the earlier study. They found that countries with tax ratios that are above average tend to have tax indices that are above average and vice versa. They also found stability in the rankings of countries over time (Stotsky and Wolde-Mariam 1997: 12).

Chelliah, et al. (1975) relate the tax share in GNP to various combinations of explanatory variables by using a sample of 47 countries averaged over the 1969-71 period. The study obtained the best fit by using agricultural, mining, and the export shares in GNP as explanatory variables. They found that mining is positively related to the tax share while agriculture is negatively related and the export ratio is insignificant. They also found that, countries with a high share of tax revenue in GNP tend to have a high index. However, these results are not uniform. Some countries have a high tax effort but not high tax shares and vice versa. Over time, there appears to be consistency in the tax effort measures, though the tax effort index changes considerably in some countries, compared to the earlier study (Stotsky and Wolde-Mariam 1997).

Bahl (1971) presented an extensive survey of earlier studies of tax effort. His conclusion was that among developing countries there are differences in openness which account for differences in government revenue shares at least to the same extent as differences in per capita income. The author suggests the existence of volatility in the statistical results with respect to changes in the composition and to the size of the sample as well as the addition of explanatory variables (Stotsky and Wolde-Mariam 1997).

Lotz and Morss (1967) were the first to use the difference between actual and predicted tax ratios for the purpose of making inter-country tax effort comparisons (Stotsky and Wolde-Mariam 1997).

This review of the relevant literature shows not a single study examined the situation in Oman using the same methodology. Moreover, according to Ghali (1997: 168), cross-sectional analysis cannot capture a country-specific nature of a given issue or policy. Furthermore, it can be concluded that the literature on tax effort contains mixed results. Finally, every now and then, even for the same country, there are conflicting results coming from different studies, which use different methods and analyse different time periods (Atukeren 2005: 6).

In the field of the effect of tax incentives on FDI flows, several factors influence foreign direct investment (FDI). They include:

- (i) The size of the market;
- (ii) Exchange rate policies;
- (iii) Infrastructure;
- (iv) The quality of labour;
- (v) Political stability and finally;
- (vi) Taxation.

Widespread tax policies used to attract FDI include corporate income tax reductions, tax holidays, accelerated depreciation, investment tax credits and preferential treatment of income such as low taxes on earnings from exports. (Mintz 2004: 3)

Jensen (2005) examined the relationship between corporate tax rates and multinational production in the OECD from 1980-2000. Through utilizing descriptive statistics, standard time-series-cross-sectional models and dynamic panel analysis to explore the impact of corporate taxation rates and FDI inflows in 19 OECD economies from 1990-2000, he found no relationship between foreign direct investment and corporate taxation.

Moreover, based on a panel of bilateral FDI flows in 11 OECD countries over 1984-2000, Benassy-Quere and Lahreche-Revil (2004), show that tax differentials also

play a significant role in understanding foreign location decisions. An investigation of non-linearities in the impact of tax differentials, and an exploration of the impact of tax schemes shows results consistent with the imperfect competition literature. This underscores the possibility of tax differentials across countries in equilibrium. Since there is an irregularity in FDI flows from countries applying exemption or credit to repatriated profits, tax incentives should depend on the composition of investing countries.

Another study conducted by Beyer (2002) to examine how effective were the introduced incentives in a number of countries, suggests that the comparative analysis shows that in spite of the advantageous effects of FDI on the transition process, the introduction of tax concessions appears to be of little value. No significant relationship between tax incentives and the level of FDI was found.

Evaluating these studies, two aspects can be noted: (i) none of these studies tackled the situation in Oman; (ii) most of these studies are primarily based on data across countries in disregard to each country's uniqueness. While the findings are quite revealing, case-by-case studies on each country's unique characteristics remains an important issue (Were 2001: 9).

The aforementioned discussion can be summarised as follows:

2. None of these studies tried to examine the impact of government size on GNP in Oman. Nor has any new study investigated the relationship between government size and GDP as a whole and non-oil GDP;
3. The optimality of government size is a practical indicator, which can present a comprehensive idea about whether government expenditure is optimal or too large. As such an investigation would shed light on the optimal government consumption. The finding could help Omani policymakers to formulate appropriate measures;

4. The causality relationship between public spending and growth can be used as a sensitive gauge to measure the possibility of and extent of a policy on public expenditure which could be embraced without affecting the economic growth of countries like Oman;
5. The impact of debt on growth can give a good picture about the effect of public debt on economic growth and illustrate the relationship between the two variables. This area has not been considered yet in the Omani economy;
6. None of these studies has investigated the relationship between fiscal deficit and balance of payment in Oman;
7. None of these studies has examined the existence of Wagnerian Law in the Omani economy.

It is therefore possible to conclude that this study attempts to fill the following gaps and shortcoming in the literature on the issue:

- The study covers the period from 1970 till the year 2002;
- It covers the causes and effects of the fiscal failures;
- It also adopts an analytical as well as an explanatory approach;
- The study fills a gap in the literature on Omani fiscal policies and economic planning and the relationship between some macroeconomic aggregates and variables;
- Finally, it investigates the suitability for the Sultanate of Oman to adopt a new vision and framework within which it can achieve a desirable diversification in its budgetary resources, and enhance the role of fiscal policies in its economic planning.

2.4 Conclusion

The chapter highlighted the significant role and middle way of government intervention, the meaning, mechanism and importance of fiscal policy, in addition to considering issues that may affect its efficiency. It has concluded that fiscal policy is a policy under which government uses its expenditure and revenue programmes to

produce desirable effects and avoid undesirable effects on the national income and employment. In other word, in order to affect the rate of employment, raise the national income and achieve stability in the economy, government uses public expenditure and revenue as a tool. However, as it concluded, fiscal instruments are those certain financial procedures adopted by government to achieve the objectives of fiscal policy such as planned deficit and borrowing programmes. The chapter has also showed that the intensive role of government in the economy dictates a broad usage of fiscal policy instruments. Depending on a number of determinations, the efficiency and effectiveness of fiscal policy vary from one country to another. In developing countries, these determinants play either a weak or negative role, and hence, the efficiency and effectiveness of fiscal policy in those countries is less than that in developed ones. In addition to the above mentioned challenges that face fiscal policy in developing countries and which can be applied to oil producing countries, fiscal policy in the latter encounters a unique and magnitude challenge. Oil income is exhaustible, and its exhaustibility imposes the complex issues of sustainability, economic fluctuation and intergenerational resource allocation. AGC countries, including the Sultanate of Oman, are special cases among oil-producing countries. Although, these countries have made substantial economic progress in the last two decades, their economies are still heavily influenced by huge public expenditure which is financed, almost entirely by oil revenues. The role of the non-oil sector in these economies is weak and the diversification policy still needs further efforts. The contribution of tax receipts is insignificant and the balance of payments is characterized principally by the export earnings of the petroleum sector and payments abroad for non-oil imports. Moreover, because these countries need to harmonise their fiscal policies in line with commonly adopted external tariffs, they also need to develop other tax bases by levying new taxes, increasing current tax ratios and reducing applied tax exemptions.

The chapter also illustrates the relationship between fiscal policy and macroeconomic variables. According to some theoretical and empirical studies, fiscal

policy can be used to influence economic growth through more than one channel, for instance, through calculated public spending on infrastructure, investment and capital accumulation. The high level of military spending is one of the obstacles that face fiscal policymakers. Countries spend around 3.4% of their GDP on the military. However, in the region of this average there is huge variation ranging from 0.1% to 46% and developing countries have the highest of those levels. The recent studies have found that there are negative effects on growth from military spending. Also, a correlation has been found between high rate of military expenditures increasing budgetary deficit and a deterioration in public investment in these countries where large increases in military expenditures have occurred.

While planning public expenditure, fiscal policymakers have to take into account several considerations. The most important of which are: (i) prioritisation, for instance, how much should be spent on each of the public service sectors; (ii) the efficient use and processing of the resources and; (iii) Cost- Benefit analysis. This analysis should be given just as much as similar importance as any Cost- Benefit feasibility study adopted by a private enterprise. However, in the case of public expenditure, the analysis should go beyond the financial profitability. Consequently, in allocating the resources policymakers will need to assess not only the appropriateness of the required reduction in this sort of spending, but also a reconsideration of the priorities.

In addition, the chapter has shown that efficient management of fiscal deficit is one of the issues associated with fiscal policy, and that the Keynesian framework of planned deficit ignored the long-run effects of debt accumulation and risks associated with chronic or structural fiscal deficit. Therefore, fiscal deficit has been at the forefront of macroeconomic adjustment policies in both developing and developed countries. The chapter then demonstrated that, in many countries, adopting a permanent deficit spending policy resulted in a problem of indebtedness and debt unsustainability. It concluded in this concern that in the light of the preceding alarms and according to the latest changes in the international economic environment, there

is a substantial need for efficient debt management and for a review of the institutional arrangements in these countries.

Furthermore, because of the importance of the planned coordination between fiscal and monetary policies in managing the economy, the chapter has highlighted this connotation and demonstrated the risk of the contradictions. It has concluded that there is always a need for the efficient management of budgetary deficit and public debt. This needs effective and appropriate interaction between debt management and monetary and fiscal policies.

To sum up, fiscal policymakers in developing countries should consider the scope for reallocating existing government spending into priority area and reviewing the non-productive spending, including areas where a rationale for public intervention does not exist. In addition, they must carefully consider public services priorities particularly, when the tax system is not efficient and progressive. There must also be consideration of the distributional and growth impact of spending and an evaluation of the extent to which government intervention is essential, and whether the envisaged public goods or services can be delivered efficiently in accordance with their development planning. Furthermore, providing additional revenues in the framework of a diversification policy will be an important issue.

Having discussed fiscal policy in theory and practice as well as the issues that follow its application, in the next chapter the focal point will be the characteristics of the Omani economy through presenting a profile of this economy. The main objective behind this is to illustrate the weaknesses and strengths of the economy. This will be helpful later in understanding to what extent fiscal policies in Oman have contributed to the creation of these weaknesses and whether employing its strengths will help in achieve the planned developmental objectives.

CHAPTER 3: A PROFILE OF THE OMANI ECONOMY

3.1 Introduction

Although oil in the Sultanate of Oman, in commercial quantities, was discovered in 1962, until 1970 the Omani economy was extremely reliant on the two sectors of agriculture and fisheries. The majority of workers in the Omani labour force were concentrated in these two industries. It is now more than thirty-six years since 1970. It is needless to say that oil has been the fuel for economic development in the Sultanate. The share of oil revenues in GDP decreased from about 70% in 1970 to almost 40% in 2003. The nominal GDP in the Sultanate of Oman was only (RO)* 104.7 million in 1970 (the year of the dawn of the blessed renaissance), it had increased to RO 7.8 billion in 2003, with a growth ratio of more than 7400%, which undoubtedly reflects the enormous economic, social and political progress and stability. The Sultanate, through the last three decades, has achieved dramatic progress and there has been a civilization transformation in the Omani people's lives. From being a poor country, the Sultanate is now categorized among the group of the high middle income countries. Omani people also enjoy free medical care and free education, including higher education. In addition to that, there is no personal income tax levy yet and Omanis are enjoying a low inflation rate.

Through cautious and rational management of the oil fortune, the creation of a huge number of infrastructure projects and rapid development in public services has been achieved. However, despite the Omani government's watchful policy adopted, during the preparation process of the state general budget, on the fluctuation and volatility of the international oil prices, the changeability in oil prices and the failure to adhere to the main plan, were major reasons that affected fiscal planning in the

* The Omani currency is "Rial" (RO) and is pegged at fixed rate to the U.S. dollar to equal \$ 2.58

implementation stage. The state general budget has recorded an overall fiscal deficit over the years and the public debt has become relatively high. This reflects the high level of current expenditure and the unstable and volatility of international oil prices. The fiscal stance, accordingly, requires urgent action to settle the fiscal and economic imbalances.

In the light of the fiscal imbalances, the weak performance of the other economic sectors and their low contribution to GDP and due to the expected depletion of oil reserves, which will be discussed later, the economic policymakers in the Sultanate realized that this problem has two dimensions. Firstly, the fiscal dimension: the state role is enormous^{*}. Accordingly, many solutions have been offered. Among the fiscal policies and rules adopted to improve the fiscal performance, to control the growing size of budgetary deficit and to ensure adherence to planned budgets, many efforts are currently being undertaken to raise public revenue. To this end, the government has increased customs duties on luxury items in addition to imposing a significant raise in corporate income tax. It has also developed new sources to finance the deficit through non-inflationary domestic borrowing.

So as to control external debt and to avoid the risks of external imbalances, the government determined a ceiling on government borrowing of RO 1.5 billion. Similarly, the fiscal policymakers in the Sultanate have tried to finance the rest[†] of the budgetary deficit yearly through domestic borrowing. Indeed the Central Bank of Oman has stated there is sufficient liquidity in the economy and hence such a policy is not expected to result in a crowding-out effect on private investment.

However, some of these policies could not be achieved for several reasons. First of these is the fluctuation in international oil prices. Second, is the rapid growth in public expenditure. This was not met with a similar expansion in public revenues

^{*}This point will be discussed later in this chapter.

[†]The big proportion of fiscal deficit usually financed through withdrawing from the State General Reserve Fund (SGRF) which was founded according to the Royal Decree No. 1/1980.

either in the hydrocarbon sector specially when the daily production of crude oil in the crude oil sector started declining after the sudden announcement of the reduction in the Omani oil reserves by 20%, or in the non-oil revenues. A third reason is the growth in the size of debt services expenditure as a result of the accumulated public debt.

The Second dimension is general and macroeconomic. It exists in the weak performance of the non-oil economic sectors. Strengthening these sectors to boost their contributions to GDP was prescribed by the economic policymakers. Several suggestions were recommended such as:

- (i) Improving the role of the private sector and privatization;
- (ii) Diversifying the resources of income through a diversification policy; and
- (iii) Reforming the labour force sector through an Omanization policy designed to reduce the dependence on other countries skilled workers and the high level of expatriate workers' remittances on the current account.

Given that the fiscal imbalance still exists and that the lifetime of the crude oil reserves is short (estimated to be between 17 and 20 years), the purposes of this chapter is to analyse the performance of economic activity in the Sultanate in the light of these overall macroeconomic solutions which were suggested as a remedy. Moreover, to illustrate to what extent these policies contribute in boosting the national income and reducing the macroeconomic imbalances, the chapter will:

- Show the main characteristics and economic sectors of the Omani economy;
- Illustrate the role of the government in the economy, and the huge dependency of the economy on oil revenues;
- Analyse the role of the following policies in reducing the dependency on oil revenues concerning:
 - The labour force sector and Omanization;
 - The private sector and privatization;
 - Diversification;

- Analyse the performance of the most important economic sectors such as crude oil, natural gas, agriculture, fisheries, mining and quarrying and, finally, industry;
- Demonstrate to what extent these macroeconomic policies have succeeded in reducing the macroeconomic imbalances.

3.2 The Main Characteristics of the Omani Economy

Like other AGC countries, the most important characteristics of the Omani economy are:

- It is heavily dependant on the exports of crude oil and other hydrocarbon products for export receipts and government revenue;
- It has a relatively small private sector;
- It has a very low degree of self-sufficiency in most requirements except hydrocarbons;
- It has risen as a modern economy on the back of its oil revenues;
- Its government owns of almost all hydrocarbon resources;
- There is a tradition of strong public sector ownership of the means of production which are the main driving force in the domestic economy;
- There is limited utilisation of the available natural resources other than hydrocarbons;
- The contribution of the agricultural sector to gross domestic product is low;
- The contribution of domestic labour force in the private sector is limited (ESCWA 2001).

In addition, it can be stated that the Omani economy is a rentier economy. As suggested by Beblawi (1990: 87-88), there are four characteristics that would determine whether or not a state could be identified as “rentier”:

1. If rent situations predominate;
2. If the economy relies on a substantial external rent;

3. If only a small proportion of the working population is actually involved in the generation of the rent and finally;
4. The state's government is the principle recipient of the external rent.

These factors are prevalent in the Omani economy, which evidences that Oman is a rentier state. The Omani economy has therefore a number of the characteristics of developing country economies and particular the characteristics of “rentier states”. It depends on a single commodity, even though crude oil forms more than one-third of GDP, more than three quarters of the annual fiscal revenues and about four-fifths of total Omani exports. Moreover, it is characterized by a weak industrial base, dominated in economic activities by a government which is the greatest economic sector, the oil sector. The result is an economy in which GDP is hugely affected by the level of government expenditure.

Furthermore, the Omani economy is further characterized by falling savings and investment aggregates. Domestic savings as a ratio to GDP diminished from 47% in 1981 to 32.8% in 2002. Similarly, national savings deteriorated from 38% in 1981 to 21% in 2002 and fixed capital formation declined from 21.7% in 1981 to 12.5% in 2002.

The Sultanate of Oman has sustained an open-door policy since 1970 (MONE 2002b). To attract foreign investment, the government is moving ahead with a liberalization of its markets and joined the World Trade Organization (WTO) in November 2000 (MONE 2002b). In order to attract more foreign investment the Sultanate is embarking on policies and strategies to privatize its utilities and developing a body of commercial law to facilitate and develop the best climate to create itself as a centre of attention that can attract foreign investors. In an endeavour to boost the size of FDI, the Sultanate took steps to encourage foreign investment by allowing up to 100 per cent foreign ownership of certain types of economic projects and by giving income and customs tax incentives on projects with foreign

shareholders. Similarly, in the domain of supporting and promoting projects which are being created by Omani youth, there are many incentives being given to new industrial, tourist and agricultural projects. In this regard the most important involve incentives granted by the government, soft loans, subsidies, and tax exemptions.

These steps were embraced in the light of several Royal Decrees, Ministerial Decisions and new laws*. To increase private investment and promote the export of Omani products to other countries, Ministerial Decision No. 80/1997 for the purposes of determining the precepts and the criteria of granting the income and customs tax incentives was issued. However, foreign investment has not yet played the expected role in the diversification of economic resources and the development of the private sector (Ministrial-Decision-80/97 1997).

Furthermore, Table 3.2 below shows how the Omani economy characterized by the deteriorated ratios of investment and increased levels of consumption.

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* See Royal-Decree-47/81 (1981). For the Purpose of Authorization of the Law of the Corporation Income Tax.

Royal-Decree-77/89 (1989). For The Purpose Authorization Of The Body Of The Corporation Income Tax Law.

Royal-Decree-80/93 (1993). For The Purpose Of Amending The Corporation Income Tax Law On Mixed Companies.

Royal-Decree-93/94 (1994a). For The Purpose Of Adding A Term In The Body Of The Corporation Income Tax Law.

Royal-Decree-125/94 (1994b). For The Purpose Of Adding And Amending A Term In The Body Of The Corporation Income Tax Law.

Royal-Decree-59/96 (1996). For The Purposes Of The Establishing Of The Omani Centre For Investment Promotion And Export Development.

, Royal-Decree-27/99 (1999). For The Purposes Of Amending A Number Of Terms In The Body Of The Corporation Income Tax Law.

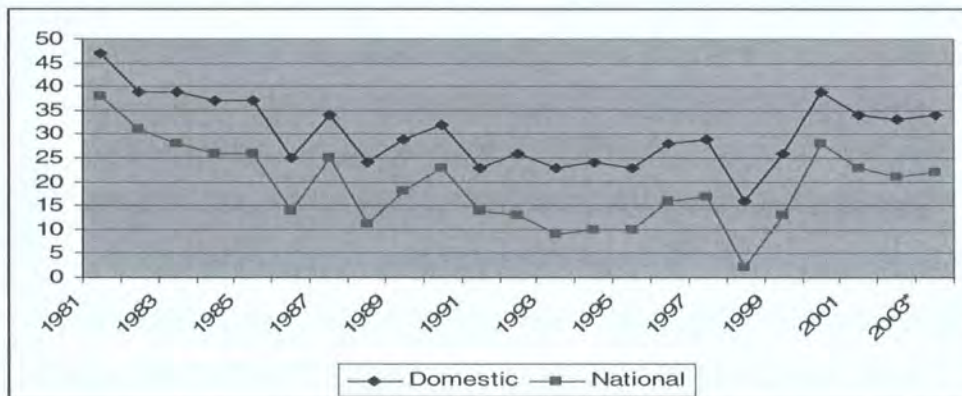
Table 3.1: Domestic and National Savings to GDP

Year	GDP Million RO	Savings			
		Domestic		National	
		Million RO	% of GDP	Million RO	% of GDP
1981	2,637.6	1,234	47	999.1	38
1982	2,773.9	1,084	39	846.1	31
1983	2,932.8	1,132	39	834.8	28
1984	3,232.1	1,192	37	841.6	26
1985	3,590.6	1,338	37	939.4	26
1986	3,143.4	773	25	436.7	14
1987	3,317.6	1,121	34	844.5	25
1988	3,224.5	769	24	355.6	11
1989	3,603.6	1,041	29	635.4	18
1990	4,493.0	1,437	32	1,029.8	23
1991	4,360.8	1,018	23	595	14
1992	4,787.8	1,222	26	613	13
1993	4,803.6	1,082	23	448.3	9
1994	4,967.3	1,190	24	507	10
1995	5,307.2	1,245	23	532	10
1996	5,874.3	1,628	28	932.5	16
1997	6,089.5	1,771	29	1,044.5	17
1998	5,415.9	879	16	121.7	2
1999	6,040.6	1,569	26	763.1	13
2000	7,639.2	2,992	39	2,166.7	28
2001	7,670.4	2,591	34	1,742.5	23
2002	7,807.0	2,562	33	1,659.3	21
2003*	8,342.80	2,838	34	1,862.6	22

* Provisional

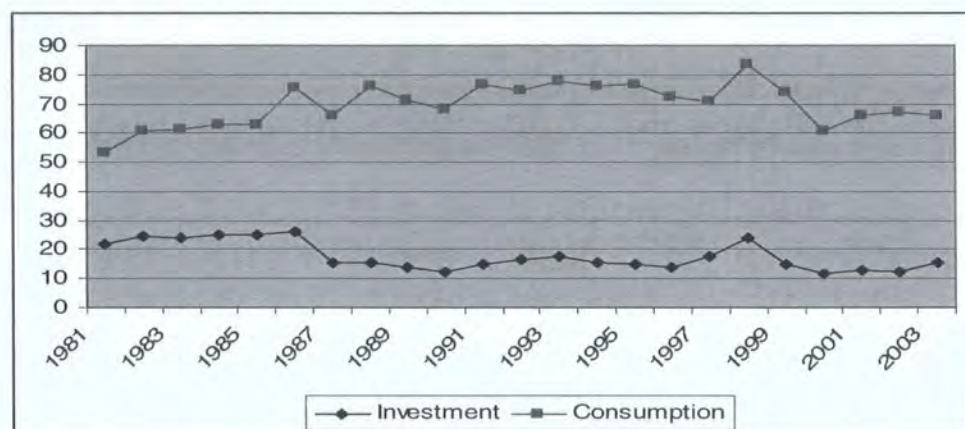
Source: Ministry of National Economy, Yearly Statistical Book 2003.

Chart 3.1: Domestic and National Savings to GDP



Source: Table 3.1

Chart 3.2: Investment and Consumption to GDP



Source: Table 3.2

Table 3.2: Development of Investment and Consumption to GDP.

Year	GDP	Investment		Consumption	
		Mln. RO.	% of GDP	Mln. RO.	% of GDP
1981	2,637.6	573.1	21.7	1,403.4	53.2
1982	2,773.9	686.1	24.7	1,689.8	60.9
1983	2,932.8	709.8	24.2	1,800.9	61.4
1984	3,232.1	803.6	24.9	2,040.5	63.1
1985	3,590.6	900.4	25.1	2,252.1	62.7
1986	3,143.4	819.7	26.1	2,370.7	75.4
1987	3,317.6	518.5	15.6	2,196.2	66.2
1988	3,224.5	489.6	15.2	2,455.9	76.2
1989	3,603.6	507.4	14.1	2,562.2	71.1
1990	4,493.0	554.8	12.3	3,056.1	68.0
1991	4,360.8	655.0	15.0	3,342.8	76.7
1992	4,787.8	783.0	16.4	3,565.8	74.5
1993	4,803.6	842.3	17.5	3,721.3	77.5
1994	4,967.3	782.0	15.7	3,777.3	76.0
1995	5,307.2	795.0	15.0	4,062.2	76.5
1996	5,874.3	804.5	13.7	4,246.8	72.3
1997	6,089.5	1,074.5	17.6	4,318.0	70.9
1998	5,415.9	1,298.7	24.0	4,537.1	83.8
1999	6,040.6	897.1	14.9	4,471.5	74.0
2000	7,639.2	911.7	11.9	4,647.5	60.8
2001	7,670.4	969.5	12.6	5,078.9	66.2
2002	7,807.0	977.3	12.5	5,244.8	67.2
2003*	8,342.8	1,306.6	15.7	5,505.2	66.0

*Provisional.

Source: Ministry of National Economy, Yearly Statistical Book 2004.

3.3 Role of the State, Dependency on Oil Revenues and Diversification Policy

3.3.1 Role of the State

To repeat, one of the characteristics of the Omani economy is that the government plays a crucial role in the economy. Through its huge ownership of the hydrocarbon sector, the government is the most important economic actor. By using fiscal policy, particularly, its huge public expenditure, affects all economic activities. The role of the government in the Omani economy can be seen from the size of government expenditure, the number of state enterprises it owns and from the size of that ownership (Al-Hejry 1997). Between 1970 and 1987, the Omani government expanded its role to take control of economic resources. In addition to the hydrocarbon sector, which forms the largest sector in the economy, the government took possession of a significant number of enterprises and projects. However, as mentioned earlier, after adopting a privatization policy* many of its enterprises and projects were privatized. Although the economic system is market oriented, the government continues to play a large role, both in development planning and as a financier. This is because of the huge role of the hydrocarbon sector's receipts as a ratio of GDP. Therefore the revenues of crude oil have an enormous implication on the entire economy. According to Al-Hejry (1997), notwithstanding that the prices of crude oil directly affect the oil sector and government revenues, any fluctuation occurring in the international oil price has a significant influence on the private as well as public sector. This is because the activities of many private enterprises depend, either directly or indirectly, on the oil industry. Moreover, the huge role of the Omani government in the economy can be noticed through its duplex role in the market as both employer and purchaser of goods and services. The most important sectors in which the government plays an important role are security and defence sector, education, health and the hydrocarbon sector. In light of small private sector,

* Privatization policy will be discussed in brief later in this chapter.

this role is essential. It has a significant effect on economic activity and clearly illustrates the huge role that can be played by fiscal policy.

3.3.2 Dependency on Oil Revenues

To re-emphasize, the Omani economy is based on oil revenues. And it is plainly true that reliance on a single commodity for revenue creates a huge dependency on it and makes the economy vulnerable to external shocks and fluctuations in the international prices of that commodity. It is true also that the idea of that a country should not rely totally on the export of raw materials. In order to reduce this high level of reliance on one commodity, great effort is needed to transform plans into practical and effective accomplishments.

Due to the sharp collapse of oil prices in 1986, when the annual average price of a barrel of crude oil declined from \$27 in the previous year to \$13, entire sectors of the national economy were deeply influenced. In that year, GDP growth was negative (-12.5%). In the same year the Omani Rial was devalued by 10% according to the recommendations of the monetary policymakers at that time*. Again the collapse of oil prices in 1988 had a negative impact on the growth ratio of GDP, (-2.8%). Similarly, the decline of oil prices in 1991 and 1993 had negative impacts on the performance of the economy and the growth ratios were (-2.9%), 0.3% respectively. In 1998, when the prices fell again to only \$12, the growth ratio recorded (-11.1%). Table 3.3 illustrates the relation between oil price and GDP growth.

The huge dependency can be seen also through the share of oil revenue to GDP. Although this share decreased from 43.4% in 1981 to 28.8% in 2003 (Table 3.4), it is still high considering that there are many economic activities which rely on oil

* Although, it is beyond the scope of this study to discuss the efficiency of such a policy, it worth noticing that this policy was inefficient according to study conducted by Suwaidi, S. (1993). "The Impact of the Rial Devaluation on the Performance of the Omani Economy." *Journal of the Gulf and Arabian Peninsula Studies* XVII(69).

industry revenues. Moreover, taking into account the huge role of the government sector in the economy, the revenues of the hydrocarbon form more than three quarters of the budgetary revenue. This in fact poses the question: To what extent is the diversification policy in the Sultanate effective in strengthening the non-oil sectors?

Table 3.3: Oil Prices and GDP Growth.

Year	1985	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Oil Prices	27	13	17	14	16	21	17	18	16	15	16	19	19	12	17
GDP Growth	11.1	-12.5	5.5	-2.8	11.8	24.7	-2.9	9.8	0.3	3.4	6.8	10.7	3.7	-11.1	11.5

Source: Ministry of National Economy, Facts and Figures, 2000.

3.3.3 Diversification Policy

As mentioned earlier in this chapter, the Omani economy is highly depends on oil receipts. A long time ago the government appreciated the risks associated with the huge reliance of the national economy on a single commodity. The collapse of crude oil, however, caused the worldwide oil market to enter a period of glut, especially that of 1986. This propelled the Omani government towards policies of economic diversification and the policymakers in the Sultanate have realized ever since the importance of diversification in income sources.

Like other AGC counties, the purpose of economic diversification in the Sultanate of Oman, is reducing the leading role of the public sector in the economy by promoting the growth of the private sector.

As mentioned above, the successive sharp fluctuations in the international oil price during the 1980s and 1990s generated considerable instability in all the AGCC economies, including that of the Sultanate of Oman, and made economic diversification one of the basic priorities of economic policy. Another purpose of

economic diversification policy in the Sultanate is to develop a non-oil economy, non-oil exports and non-oil revenue sources.

Table 3.4: Government Revenue and Expenditure to GDP

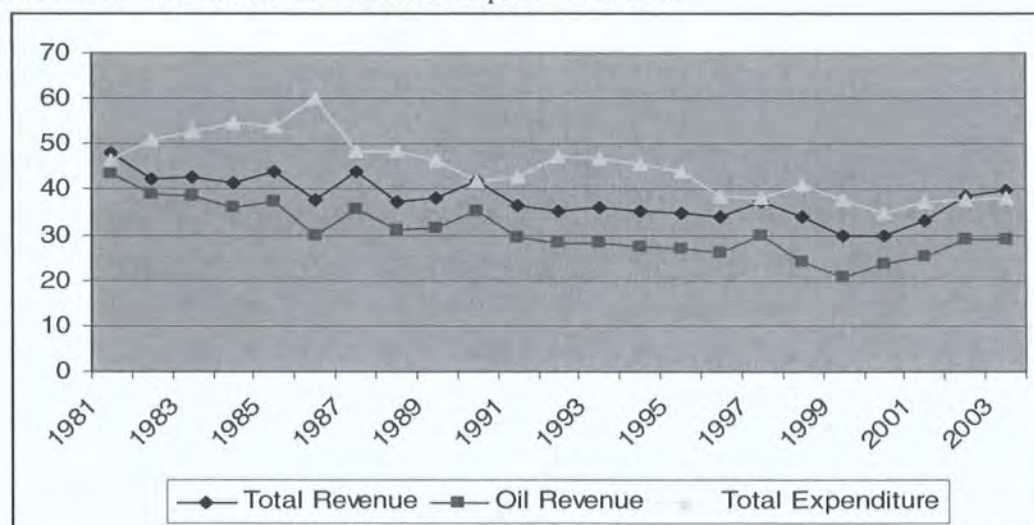
Year	GDP	Total Revenue Mln.RO	Total Revenues To GDP	Oil Revenues Mln .RO.	Oil Revenues To GDP	Total Expenditure Mln. RO.	Total Expenditure To GDP
1981	2,637.60	1,262.2	47.9	1,143.5	43.4	1,223.7	46.4
1982	2,773.90	1,175.4	42.4	1,076.2	38.8	1,412.9	50.9
1983	2,932.80	1,253.9	42.8	1,127.8	38.5	1,546.9	52.7
1984	3,232.10	1,340.7	41.5	1,167.2	36.1	1,760.3	54.5
1985	3,590.60	1,572.9	43.8	1,343.5	37.4	1,928.4	53.7
1986	3,143.40	1,186.9	37.8	932.9	29.7	1,886.8	60.0
1987	3,317.60	1,460.2	44.0	1,182.1	35.6	1,609.1	48.5
1988	3,224.50	1,204.8	37.4	995.0	30.9	1,567.2	48.6
1989	3,603.60	1,370.1	38.0	1,129.5	31.3	1,665.8	46.2
1990	4,493.00	1,876.3	41.8	1,588.3	35.4	1,887.4	42.0
1991	4,360.80	1,585.1	36.3	1,289.5	29.6	1,868.1	42.8
1992	4,787.80	1,680.2	35.1	1,338.9	28.0	2,258.7	47.2
1993	4,803.60	1,723.9	35.9	1,360.7	28.3	2,242.4	46.7
1994	4,967.30	1,757.4	35.4	1,364.0	27.5	2,252.9	45.4
1995	5,307.20	1,851.6	34.9	1,433.3	27.0	2,331.0	43.9
1996	5,874.30	1,990.2	33.9	1,529.0	26.0	2,253.7	38.4
1997	6,089.50	2,267.2	37.2	1,805.6	29.7	2,307.3	37.9
1998	5,415.90	1,846.3	34.1	1,303.5	24.1	2,221.6	41.0
1999	6,040.60	1,796.1	29.7	1,259.2	20.8	2,269.0	37.6
2000	7,639.20	2,289.9	30.0	1,794.4	23.5	2,656.2	34.8
2001	7,670.40	2,539.8	33.1	1,948.6	25.4	2,860.2	37.3
2002	7,807.00	3,009.5	38.5	2,277.1	29.2	2,939.5	37.7
2003	8,342.80	3,305.3	39.6	2,403.4	28.8	3,188.9	38.2

Source: Ministry of National Economy, Yearly Statistical Book 2004.

Economic diversification, initially, was driven by a sense of uncertainty about the duration of the first oil boom and accompanied by quick plans to develop the physical and social infrastructure in order to provide a basis for the development of the economy outside the oil sector. In addition to the continued expansion of the physical and social infrastructure, economic diversification has come to encompass

the development of industries like petrochemicals, manufacturing, agriculture and services like financial services and, recently, tourism and education and training. In recent years, in a bid to encourage such investments in diversification projects and to expand local financial markets, there has also been an increasing trend to eliminate restrictions on foreign investment. (ESCWA 2001)

Chart 3.3: Share of Government Revenue/ Expenditure in GDP.



Source: Table 3.4

So as to gauge to what extent the diversification policy can contribute in strengthening the non-oil economic sectors in the Sultanate, see Table 3.5. This demonstrates that except for manufacturing, the shares of the other sectors in GDP are too low and insignificant.

The table shows how contribution of the agricultural sector has deteriorated instead 1.5% in 1981 to only 1.3% as a share of GDP. Similarly, the fisheries sector which formed 0.8% as a proportion of GDP in 1981 is only 1.3%. This in fact exacerbates the stance of the current account in the balance of payment of the Sultanate. Taking into consideration the huge share of oil revenue of 70%, in total budgetary revenues, Table 3.5 draws attention to the importance of prioritising of a diversification policy, broad fiscal reform and activating fiscal policies.

Table 3.5: Contribution of Oil and Non-oil Sectors in GDP

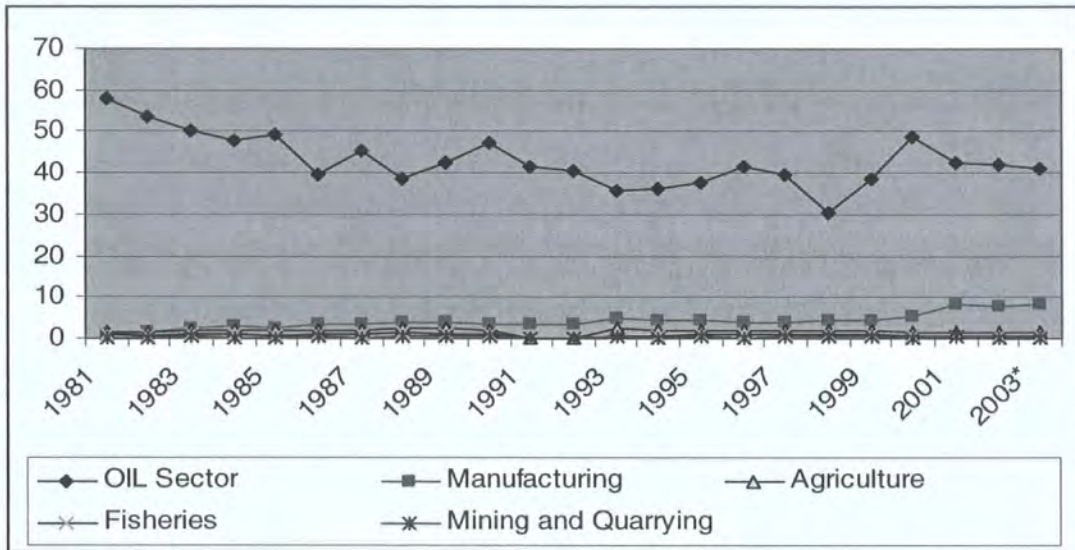
Year	Oil Sector	Manufacturing	Agriculture	Fisheries	Mining and Quarrying
1981	58	1	1.5	0.8	0.1
1982	53.7	1.4	1.6	0.7	0.1
1983	50	2.3	1.8	0.9	0.5
1984	48	2.8	1.7	1	0.2
1985	49.3	2.3	1.9	0.7	0.2
1986	39.5	3.2	2.1	0.9	0.3
1987	45.2	3.3	2.1	1	0.2
1988	38.8	3.8	2.4	1.4	0.4
1989	42.4	3.7	2.3	0.9	0.5
1990	47.1	3.3	1.9	0.8	0.3
1991	41.3	3.4	NA	NA	0.2
1992	40.4	3.6	NA	NA	0.2
1993	35.9	4.6	2.4	0.6	0.3
1994	36	4.3	1.9	0.6	0.2
1995	37.6	4.5	1.9	1	0.3
1996	41.3	4	1.7	0.8	0.2
1997	39.4	3.9	1.7	0.9	0.3
1998	30.2	4.5	1.8	0.9	0.3
1999	38.7	4.2	1.7	0.9	0.3
2000	48.7	5.4	1.3	0.6	0.2
2001	42.6	8.3	1.4	0.7	0.3
2002	41.9	7.7	1.3	0.7	0.2
2003*	41.2	8.2	1.3	0.7	0.2

*Provisional

Source: Ministry of National Economy, Yearly Statistical Book, Several Years.

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Chart 3.4: Shares of oil and non-oil sectors in GDP



Source: Table 3.5

3.4 Performance of the Private Sector and Labour Force Policies

3.4.1 The Private Sector and Privatization

3.4.1.1 The Private Sector

In following the adoption of a developmental strategy that promotes private initiatives and develops the private sector role in the economy, and so as to reduce the government's role, the role of the private sector should include several responsibilities:

- It shall create a leading and highly competitive efficient, self-reliant private sector and capable of integrating into the global economy;
- It shall be the main national income generator;
- It shall be the major supplier of remunerative employment opportunities for citizens;

- It shall be responsible for promoting stable macroeconomic policies helping to create frameworks enabling government to reduce its role in controlling economic activities for promoting strategy direction, supervision and control, and improver of legal and structural frameworks, providing suitable incentive system and for reforming the financial and banking sectors, infrastructure and developing of human resources (MONE 2002e)

As is obvious in Table 3.6, according to the actual data concerning private sector performance, there was a reduction in the actual investments of the sector during the fifth five-year development plan (1996-2000) to about RO. 1885 million compared to the planned estimated of about RO 3900 million. The deviation was 51.7%.

Table 3.6: The Planned and Actual Indicators of the Private Sector Performance In The Fifth Five-Year Development Plan (1996-2000) (Ml. RO.)

Planned					Average Annual Growth Rate %	DETAIL	Actual					Average Annual Growth Rate %
1996	1997	1998	1999	2000			1996	1997	1998	1999	2000	
166.0	165.0	164.0	162.0	158.0	7.4	Private Sector Investment	123.1	117.3	144.7	128.6	151.5	6.5
24.0	135.0	344.0	297.0	128.0		- Crude Oil	23.0	86.0	133.5	71.8	17.0	15.1
153.0	325.0	254.0	164.0	110.0		- Natural Gas	0.0	0.0	0.0	0.0	0.0	
224.0	222.0	253.0	247.0	205.0	2.1	- Privatisation Programme	186.2	177.9	254.2	99.5	170.3	1.6
567.0	847.0	1015.0	870.0	601.0	15.3	- Other Non-Petroleum Activities	332.3	381.2	532.4	299.9	338.8	4.2
						Total Investment						
57.0	57.2	51.1	50.2	53.4	53.3*	Share of Private Sector in Domestic Investment (%)	41.3	35.5	41.0	33.4	37.1	38.8*
10.0	13.6	15.2	12.8	9.1	12.2*	Private Sector Investment Rate (as % of GDP)	5.7	6.3	9.8	5.0	4.4	6.1*
8.5	11.2	13.4	9.9	3.4	9.3*	Private Sector Savings Rate (as % of GDP)	6.0	6.0	0.7	5.4	11.3	6.3*
49.2	48.4	48.0	50.8	54.4	50.2*	Private Sector Final Consumption (as % of GDP)	47.6	47.6	57.6	50.2	39.5	47.9*

*Average relative share of the sector for plan period.

Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol. 1.

As a result, the share of the private sector in the total actual investments in the plan declined to 38.8% compared to the planned 53.3%. Its contribution to the GDP fell.

This distributed to the growth rate of the non-oil sectors which did not exceed 3.9%, while it was planned to reach 6.3%. Moreover, the new employment opportunities provided by the sector for Omani labour force, decreased to about 21700 compared to the planned 93000. This is a fall of 71300 employment opportunities. Furthermore, the structure of the private sector is still suffering from its fragmentation into small individual establishments. The slowdown in the sector's performance can be attributed, in addition to low productivity underuse of its established potentials and poor export performance, to a deceleration in implementing privatization (MONE 2002e).

3.4.1.2 Privatization policy

In the framework of the suggested reform policies, privatization in the Omani economy began in 1989 when the government started relinquishing its ownership in some companies to the private sector. Shares of the government in many projects have been privatized since then. The following companies can be taken as examples: National Bank of Oman, National Insurance, Sun Farms, Raisoot Cement, Gulf Hotels ...etc. In 1996, the government incorporated a programme setting out guiding principles for privatization and providing for the establishment of a ministerial committee to oversee implementation. Privatization law was enacted in the light of up-to-date results of the privatization policies of other countries after consultations with the IMF and the World Bank. The next was to privatize transport, telecommunications and power sectors. General Telecommunications Oman was privatized. As for the electricity sector, private sector establishments were given the right to sell electricity to the public for 20 years providing they agreed to ownership of the new plant at Manah by the Omani Government. These companies are now responsible for financing, building, and operating the new plant.

However, the absence of any obvious mechanism enabling privatization decisions and implementing, privatization policy in the sultanate has seen some challenges. According to the Ministry of National Economy (MONE 2002c), the Sultanate has

experienced difficulties in implementing its privatization policy, due to the absence of a clear mechanism for making binding privatization decisions. The main difficulties and challenges which face the privatization programme in the Sultanate during the fifth five-year development plan are represented in:

- (i) Presentation of establishments that are nominated for Privatization in the market before correcting their structure and status. This leads to low uptake by investors;
- (ii) Limited private sector resources. This means private investors seek guarantees profitable returns on their investments;
- (iii) Poor coordination between government units and the private sector;
- (iv) The absence of clear redundancy policies for those workers formerly employed by the government but now surplus on privatization;
- (v) Failure to enlighten citizens about privatization aims to overcome the fear of unemployment and cost of living increase;
- (vi) An absence of regulatory bodies concerning legislative and commercial decision making to protect investors, consumers and government interests; and
- (vii) (v) High costs of feasibility studies and preparations for privatization projects.

3.4.2 Labour Sector and Economic Effects of Expatriate Workers'

Remittances

One of the most significant difficulties that currently face the labour force policymakers in the Sultanate is job creation. There has been a rapid increase in the proportion of young people in the Omani population. This has caused, in turn, a speedy raise in the number of people entering the labor market. According to the current situation in the Omani labour market, the economic and labour policies in the Sultanate have been insufficient to generate employment opportunities to absorb the new wave of job seekers. An urgent solution is required to help in the job creation process to avoid social instability. The present annual population growth rate of 3.3 percent is one of the highest in the world.

Because of the heavy dependence of the Omani private sector on expatriate workers the unemployment rate among young Omanis is high. In addition, most of the skilled national labour force has been employed in the government sector whose higher wage expectations than in the private sector apply. The supply of adequately skilled indigenous is low so to decrease the dependence on foreign workers and reduce the unemployment among Omanis, the government is encouraging the replacement of expatriate workers with local people. In fact an Omanization plan was adopted by the government several years ago. The Ministry of National Economy (MONE 2002c) reported that the growth ratio of Omanization in private sector is limited. It was planned to be 25.5% in 2000 but it amounted to only 16.6%. Similarly, the planned Omanization ratio for the total labour force in 2000 38.9%, while the achieved ratio was 34.3%. The change between 1995 and 2000 amounted to only 0.3%.

The Human Resources Development Report issued by the Ministry of National Economy (MONE 2002c) stated that comparison between the preliminary results of household expenditure and the income and labour force surveys indicated increased unemployment rate among Omanis. However, the report attributes part of this to voluntary unemployment. The other part is structural.

According to the census of 2003, more than 45% of the Omani population is under the age of 20. This stresses the ever-growing demand on social services and the infrastructure. Moreover, in this cadre, one of the challenges which face policymakers in the Sultanate is that, in addition to the high numbers of the graduates from universities, colleges and institutes, approximately two thirds of the 40000 students who graduate from Omani secondary schools each year enter the job market as job seekers. Accordingly, it is expected that in the coming few years, neither the public sector, nor the small and developing private sector will be able to absorb this number of young job seekers. Particularly, they are mostly unskilled (MONE 2002c). As for the labour in the civil public sector, according to the Ministry Of National Economy (MONE 2002c), there is also a lack of specialized and expert Omanis. The actual employment structure of Omani employees in the civil service categorized by their education level, in 2000, shows illiteracy rate of 11.4%. Employees who can read and write represent 10%, elementary and preparatory schools graduates amount to 14.6%, holders of general secondary certificate and post secondary diploma form 40.8%, university graduates 21.5% and Masters and Ph.D. holders numbered only 0.8%. It is apparent from this that there is indeed a shortage of specialized and expert Omanis in this sector. This category was combined of about 10% expatriates in 2000. The participation of female employees in the civil service represents about 33.2% of the total labour force in the sector in 2000. The participation of Omani woman in employment is concentrated in education 68.9% and health 22.8%. According to the employment data in this sector, there was a slight retraction in the number of employees in the civil public sector, accounting for 0.3% by the end of the year 2000. Moreover, the total number of employees declined from 110529 to 110498.

As for the development of Omanization, in general, there was an increase in Omanization level in the civil services from 69.3 in 1995 to 75.5% in 2000. Similarly, in the civil public sector the ratio increased from 68.5% in 1995 to 74% by the end of 2000. There were figures for similar labour in the private sector, according to the annual report of Central Bank of Oman (2004), the total number of Omanis in

the private sector registered with the Public Authority for Social Insurance increased from 65,879 in 2002 to 74,816 in 2003 by 13.6%. However, the number of expatriate workers in the private sector increased by 5.9% percent from 547,477 in 2002 to 579,643 in 2003.

The statistics for the labour force of the Ministry of National Economy (MONE 2002c) indicate that wholesale and retail trade, the restaurants and hotels, the construction and building, agriculture and fishings and manufacturing sectors absorbed about 78% of the total labour force. 94.7% of the expatriate labour force in the private sector were concentrated in five main sectors: the wholesale and retail trade, restaurants and hotels, construction and building, manufacturing, community and personal services and agriculture and fishing.

It is apparent from these figures and from Table 3.7 that, to increase Omanization more concentration and efforts should be given to these five sectors for it is these sectors which absorb the most expatriate workers. Recently, a number of initiatives have been taken by the government as means to boost Omanization. They have banned expatriate workers from driving school buses, transporting of agricultural products selling and transporting cooking gas cylinders in 1998, and banning expatriates from printing and photocopying starting from January 1999. These measures raised level of Omanization in auto-service stations to 50% in 1998 and specified minimum salary rates for Omani employees in the private sector by RO.100, plus RO. 20 as transport and housing allowance.

These initiatives have been effective and contributed, to a great extent, in boosting the rate of Omanization. However, the erosion in national savings by the remittances of expatriate workers is still significant. Table 3.8 shows to what extent these remittances affect national savings. In 1981 the share of expatriate workers' remittances in the erosion of domestic savings was 78.3%, increased to its highest level of 91% in the second year. In 1994 the proportion recorded 87.4%, and finally

65.2% in 2003. Although the trend of savings erosion by expatriate workers' remittances seems to be decreasing, it is still high. The decrease was only 17% when comparing the levels of 1981 with those of 2003. This decrease occurred as a result of the raise in GDP. It can be attributed to the improvement in oil prices. Moreover, the level of these remittances, as can be noticed from the table, has not been affected by the reduction in crude oil prices. For instance, in 1986, 1988 and 1998, prices recorded their highest decline. This meant worsening the current account.

Table 3.7: Employment of Expatriates in Private Sector **Shares of Sectors (2003)**

Sectors	2001	2002	2003	Shares of Sectors (2003)
Agriculture and Fishing	63333	65900	68839	11.9
Mining and Quarrying	5425	5975	7395	1.3
Manufacturing	70850	70267	72796	12.6
Electricity, Gas and Water Connections	1388	1365	1561	0.3
Construction	129388	134179	148115	25.6
Whole Sale, Retail Trade and Car Repairs	146055	148350	149298	25.8
Hotels and Restaurants	20227	22710	26062	4.5
Transport, Storage and Communication	4464	4660	4873	0.8
Financial Intermediaries	1415	1374	1402	0.2
Real Estate and Renting Services	4968	4909	5180	0.9
Education	4539	4970	5325	0.9
Community and Personal Services	4805	5127	5424	0.9
Domestic Servants	64093	67487	72497	12.5
More than One Activity	898	882	897	0.2
Total	529998	547477	579643	100

Source: Central Bank of Oman, Annual Report, 2003.

As a point of view, the efforts that have exerted by policymakers in the framework of Omanization in the private sector can be supported by upraising the minimum monthly salary, which determined recently to be RO.100 (which is not more than \$260). Undoubtedly, it is still low, particularly when taking into consideration the increase in the cost of living in Oman.

The labour and Omanization policies in the Sultanate face a number of challenges and obstacles. These challenges and obstacles can be categorized as skills and training, specific challenges faced by businesses, obstacles facing vocational education institutions, low salaries and the negative attitudes of youth and job seekers towards work in the private sector in general and in some occupations in particular. There is an increasing number of young job seekers who are unwilling to work in vocational and handicraft occupations, due to wrong social concepts, the refusal of some employers to employ Omanis and inadequate technical and vocational qualification of those looking for work. Since few Omanis fancy working in Oman, employers are happy to fake on expatriate workers who will accept lower wages and allowances. Omani employer not alone for global companies are increasingly directing their investments to countries characterized by low wages, observance of free market economies and where international labour standards for wages, working hours, insurance, safety conditions, occupational health...etc. Moreover, the inadequate employment conditions in some establishments and working environment in the small and medium scale businesses do not encourage Omanis to work in them (MONE 2002c).

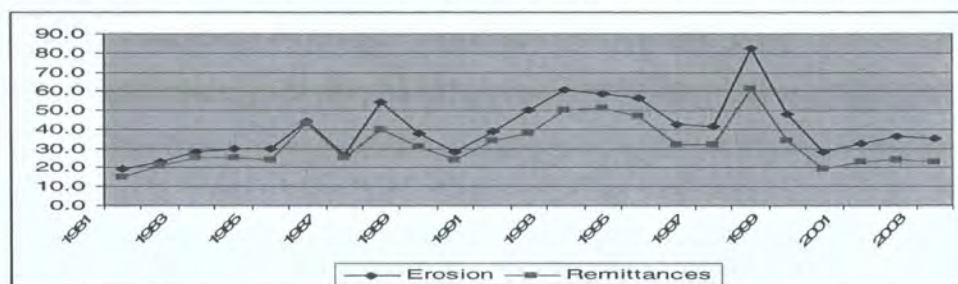
Despite the Omanization policies, the level of foreign employment has increased in recent years, which is a source of puzzlement. In other words, instead of declining, the number of foreign workers has increased, which is evidenced in table 3.7. This is runs against the aspirations and dreams of the Omani people who look forward to see a real lift of job creation rate for Omanis.

In fact, this can be attributed to the existence of what is called ‘invisible trade activities’ in the Omani economy. In this regards, Beblawi (1990) states that there is a number of characteristics particularly associated with “rentier” oil states. He adds:

“Where the government is the largest and ultimate employer, the bureaucracy is frequently bloated and inefficient – and indeed comes to resemble a “rentier class” in society. Moreover, local laws often make it impossible for foreign companies to operate independently. This leads to a situation where citizenship becomes a financial asset. In order to do business, foreign enterprises engage a local “sponsor”..... who allows the company to trade in his name in return for a proportion of the proceeds – another type of rent. In addition, the oil “rent” leads to “secondary” rents, usually stock market or real estate speculation.” (P.92)

An important source of the failure of Omanization policies has to be sought in the rentier state mentality. Since Omanis have developed rentier mentality of “receiving from the state” irrespective of their value added in the economy, they would not like to work in the jobs done by expatriate communities. Thus, social context and expectations of Omanis perpetuates the rentier mentality which prevents Omanization to effectively work. This can be evidenced by the increased number of domestic servants in table 3.7 which indicates the perpetuate and nature of rentier mentality. It can be concluded that Omanization policy still need a great heap of efforts to be efficient and effective. Moreover, the adopted labour policies have not contributed significantly in reducing the negative effect of expatriate workers’ remittances on domestic savings.

Chart 3.5: The Erosion in Domestic Savings Caused by Expatriates Workers' Remittances



Source: Table 3.8

Table 3.8: The Erosion in Domestic Savings Caused by Expatriates Workers' Remittances

(%)

Year	Domestic	National	National / Domestic	Erosion	Remittances	Remittances / Erosion
1981	47	38	80.9	19.1	15	78.3
1982	39	30	76.9	23.1	21	91.0
1983	39	28	71.8	28.2	25	88.6
1984	37	26	70.3	29.7	25	84.1
1985	37	26	70.3	29.7	24	80.7
1986	25	14	56.0	44.0	43	97.7
1987	34	25	73.5	26.5	25	94.4
1988	24	11	45.8	54.2	40	73.8
1989	29	18	62.1	37.9	31	81.7
1990	32	23	71.9	28.1	24	85.3
1991	23	14	60.9	39.1	34	86.9
1992	26	13	50.0	50.0	38	76.0
1993	23	9	39.1	60.9	50	82.1
1994	24	10	41.7	58.3	51	87.4
1995	23	10	43.5	56.5	47	83.2
1996	28	16	57.1	42.9	32	74.7
1997	29	17	58.6	41.4	32	77.3
1998	17	3	17.6	82.4	61	74.1
1999	27	14	51.9	48.1	34	70.6
2000	39	28	71.8	28.2	19	67.4
2001	34	23	67.6	32.4	23	71.1
2002	33	21	63.6	36.4	24	66.0
2003*	34	22	64.7	35.3	23	65.2

*Provisional.

Source: 1- Ministry of National Economy, Yearly Statistical Book, Several Years;

2- Central Bank of Oman (2004), Annual Report 2003.

3.5 Performance of the Most Important Economic Activities

3.5.1 Crude Oil

As mentioned earlier, the oil sector is the prime mover of the economy in the Sultanate of Oman, accounting for a significant proportion of nominal GDP, government revenue and merchandise exports. Thanks to the current high price of crude oil, in the face of a declining trend in oil production since 2000, the contribution of the oil sector has enhanced growth and development in the economy (CBO 2004). The dominant role of the oil sector can be seen through having a look at Table 3.4.

Compared to those in neighbouring countries, the oil fields in the Sultanate of Oman generally are smaller, more widely scattered, less productive, and more costly per barrel. The production is costly. Oil wells average about one-tenth the volume per well compared to neighbouring countries and a variety of enhanced oil recovery techniques are used in order to reduce the costs of exploration and development. Most of the 5.5 billion barrels of proven oil reserves is held in the northern and central regions. The Fahud, Yibal, Natih, al-Huwaisah and Lekhwair fields combined account for almost half of Omani oil production. The largest oil field in the country is Yibal. It produces around 180,000 barrel per day (bp/d). The second largest field, Nimr, was discovered in 1980 and is located in the southern part of the country. Nimr currently produces about 178,000 bp/d from more than 307 wells. The crude oil found in this region is mainly medium or light. While heavier oil is found in Southern Oman, particularly in the Nimr and Amal fields. The Sultanate of Oman's main oil export blend is medium sour crude. The Omani government is the largest employer in the field. Next in size is Petroleum Development Oman (PDO), which is a consortium consisting of the Omani government 60%, Shell 34%, Total 4%, and Partex 2%. However, Shell operates most of the Sultanate of Oman's key fields, including Yibal and Lekhwair. PDO holds over 90% of the country's oil reserves, and accounts for about 94 per cent of production. Most of the Sultanate of Oman's

crude oil customers are: China, Japan, India, and South Korea. (Pipeline-Magazine 2005).

The production of crude oil was increasing during the years before 2001. However, it then started to decline. This decrease was due to the diminishing reserves. In fact, currently the oil sector is facing a crucial difficulty. Until 2000 the proven reserves were estimated at 5.850 billion barrels (CBO 2001). However, according to Pipeline Magazine (2005), reserves fell by 5% in 2003 to 5.572 billion barrels in 2003. There then followed a sharp drop in the production of Petroleum Development Oman (PDO). The daily production was estimated at an average 753,000 barrels in 2005, which was lower than the 909,000 bp/d forecast in the sixth development plan. This diminishing in oil production can be seen in Table 3.9. From 330.2 million per year in 1999, it declined to 299 million in 2003.

Table 3.9: Oil Production & Exports (Million Barrels)

Year	Production	Change %	Exports	Change%
1999	330.2	0.9	308.8	2.9
2000	350.0	6.0	327.0	5.9
2001	349.0	-0.3	332.0	1.5
2002	328.0	-6.0	306.0	-7.8
2003	299.0	-8.8	279.0	-8.8

Source: Central Bank of Oman, Annual Report 2003.

3.5.2 Natural Gas

In the framework of diversification policy, and an acknowledged depletion in its crude oil reserves, the government hurriedly turned its attention to gas industry. In their view, the contribution of this sector as share of GDP should not be less than 10% by 2020. The natural gas sector is based on increasing the reserves of natural gas and optimising production and use (MONE 2002d).

In view of that, natural gas is expected to become the foundation stone of the Sultanate of Oman's diversification and economic growth scheme. It is hoped there will be considerable export potential after domestic consumption has been satisfied. Many of the Sultanate of Oman gas reserves are in areas owned by PDO, which produces the majority of natural gas in the Sultanate. A significant proportion of the Sultanate of Oman natural gas is located in deep geological structures underneath the active oil fields. The Sultanate began exports of Oman Liquefied Natural Gas Company (LNG) in early 2000 after the completion of a 6.6 million ton per year liquefaction plant located at Qalhat. Developed by LNG the project was a joint venture of the Omani government, Shell, TotalFinaElf, Korea LNG, Mitsubishi, Mitsui & Co, Partex, and Itochu, the Korea Gas Corporation (Kogas) is the most important among the current customers of LNG project, having contracted for 4.1 million tons per year of Omani LNG over a 25-year period. This is in addition to Japan's Osaka Gas Company and Dabhol power project in India. (Pipeline-Magazine 2005)

According to the Central Bank of Oman (CBO 2004), several gas projects, among which was the Al Mahdha-Al Ain pipe line (45 kilometres) to provide the UAE with Omani gas during 2003, have been implemented by the Oman Gas Company. In addition a 676 kilometres gas pipeline from Sehroll to Salalah was built during the year. The total capacity of the pipeline is about 5 million cubic meters per day, which is intended to provide the required energy to the the Raysut Industrial Zone and the Raysut Cement factory. Third gas pipeline was inaugurated during the year 2003 which connects Fahud to Sohar. Several projects during 2003, including a central control project, intelligent scrapers, optical fibre glass cables from Fahud to Sehrol and a pressure reduction station in Sohar, were implemented by the Oman Gas Company during the same year. Compared to 6.5 million tons in 2002, LNG exports rose to 6.7 million tons in 2003, a growth ratio of 3%.

Evaluation of the sector' performance during the fifth five-year development plan (1996-2000), shows (see Table 3.10) the value added of the sector increased from about OR 47 million in 1995 to about OR 102 million in 2000, an average annual growth rate of about 16.7%. This can be compared to the target growth rate of 36.4%. Moreover, the daily production rate for natural gas increased from about 664 million cubic feet in 1995 to about 1495 million cubic feet in 2000, an average annual increase of about 17.6%. However, the actual annual growth rate of government revenues from gas was less during the plan period as the actual growth was only 3.9% compared to the targeted level of 5.3%.

Although, the value added of the sector increased from about OR. 47 million in 1995 to about OR. 102 million in 2000, the average actual annual growth rate was 16.7% compared to the target growth rate of 36.4%, with a deviance of more than 54% (MONE 2002d).

Based on this evaluation of the performance of the sector, and according to the Ministry of National Economy (MONE 2002d), several challenges facing the sector during the last few years are evident. They are:

1. The inability to increase the value added for the Omani gas as targeted in the strategy vision of 2020* and the fifth five-year development plan. Failure is due to the non-implementation of gas based industrial projects and the lack of a suitable organizational, legal and investment framework, nor was there clear plan for these projects;
2. The difficulty and complexity of the geological composition of the Sultanate which affected the exploration;

* Vision 2020 is a national economic plan.

3. The need to increase the gas reserve to satisfy the domestic needs and requirements of the various industrial projects for the next 35-50 years;
4. A decline in actual demand for domestic consumption to a level less than that expected in the plan as a result of the delay in the implementation of a number of projects such as the project connecting the electrical stations in Barka, Al Kamil and Salalah and other intermediate industrial projects;
5. The high cost of gas development and infrastructure projects to facilitate gas supplies. Moreover, there was a strong linkage between these two kinds of projects, so that establishing industrial projects necessitated the establishment of infrastructure projects. Furthermore, the uncertainties in the private sector lead to delays in implementing the required infrastructure projects and vice versa.

3.5.3 Mining and Quarrying

The mining and quarrying sector has played a significant role in Oman's economy since ancient times. So to develop the country's mineral resources and enhance the sectors contribution to GDP, the government has adopted a programme of geological research and exploration. The sector includes copper, chromate, nickel, iron, gold and silver, in addition to many non-metallic minerals such as the large quantities of gypsum, limestone and marble. The Sultanate's gold production stood at about 141 ounces in 2003, while the production of silver was 28 ounces in the same year. This was extracted from Yankul and Sohar mines. As matter of interest, the entire production of gold and silver was exported to the UK. The production of chromate is fully exported. The main importers are Japan, the UK, Germany and some other EU countries. The production of chromate increased from 18000 metric tons in 1997 to 30,000 metric tons in 2001. However, it has started to decline to stand at 11000 metric tons in 2003 (CBO 2004).



3.5.4 Agriculture and Domestic Stock

One of the factors that lies behind the great importance of the agriculture sector is what economists call “the interdependence of agriculture and industry”. In fact no solid industry sector can be found without a well-founded agriculture sector. As soon as agriculture sector emerges from stagnation and starts to specialise and produce goods, the two sectors, agriculture and industry, become interdependent. The industrial sector picks up on the demand for goods produced by agriculture and absorbs surplus labour. As a consequence, this boosts productivity in agriculture. This, in turn, results in the agriculture sector providing market for industrial goods which stems from rising real income and creates a significant contribution to development process (Thirlwall 1999: 140).

It has been said that the Sultanate of Oman is the oasis of the Arab Peninsula. In fact, in the Sultanate there is much fertile agricultural land. In spite of the current existence of a variety of challenges, the potential of the agriculture sector is still considerable if land is utilized efficiently. The performance of the sector during the sixth five-year plan period was lower than planned. As shown in Table 3.11, the table indicates that there was a decline in the relative contribution of the sector to the GDP from 1.8% in 1995 to about 1.3% in 2000. This can be explained by low growth rates and the high relative contribution of oil sector in 2000. The sector actual average annual growth rate was 1.2%, which is lower than the planned of 7.7%. Agricultural exports decreased during the plan period at an average annual rate of 8.3%, where the total of these exports was about OR. 12.5 million in 2000, compared to about OR. 19.3 million in 1995. Moreover, the relative share of agricultural exports in total non-oil exports declined from 10.6 in 1995 million to 5 million in 2000 (MONE 2002d).

It worth mentioning that there are many factors united to create the problem in agriculture sector. According to Al-Hejry (1997), some of them were; (i) the increasing levels of salinity in groundwater in some coastal agricultural areas, which

occurred as a result of the incorrect irrigation methods; (ii) the deterioration in water table in some areas; (iii) the rural-urban migration which affected the agricultural sector through an exodus of workers from the sector attracted by the higher pay in the other sectors and by better standards of living in the main cities; (iv) poor irrigation systems in many places; (v) poor return caused by the keen competition from foreign agriculture goods discouraged farmers from improving both their irrigation systems and the agricultural techniques and machinery; and (vi) there was a significant decrease in the level of both government and private investment in the sector, as will be discussed in Chapter 6.

3.5.5 Fisheries

The Sultanate is locally and internationally famous for its fertile fishing grounds and the very high quality of its fisheries. It enjoys a long coastline of 3165 km which extends from Musandam in the north to the border with Yemen in the south. Agriculture and fisheries were the major economic sectors until 1970. The sector derived its importance from the fact that it offered great employment opportunities, and has the potential to contribute effectively to GDP, in addition to its expected role in absorbing a proportion of the current unemployment that is increasingly becoming a major concern in the Sultanate (MONE 2002a).

During the fifth five-year development plan, the performance indicators of the fisheries sector were less than the planned. These indicators showed;

- (i) A negative growth rate averaging at 1.4%, for the period of the plan, compared to the planned growth rate for the agriculture and fisheries sector estimated at about 7.7%;
- (ii) The contribution of the sector to GDP decreased from about OR. 52.2 million in 1995 to about OR 48.7 million in 2000, and so the relative contribution of the sector to GDP declined from about 1% in 1995 to about 0.6% in 2000;

- (iii) The returns from exports during the same period declined from OR. 23.6 million in 1995 to OR. 18.6 million in 2000. This gives an average annual rate of (-4.7%);

Table 3.10: Economic Indicators for Gas Sector in Fifth Five Development Year Plan (1996-2000)

(MI RO)

Detail	Actual	Fifth Five Year Development Plan					Average Annual Growth (%)
	1995	1996	1997	1998	1999	2000	
1. Value Added of Sector (Mn. R.O.)							
Planned	47.0	66.0	73.0	81.0	89.0	222.0	36.4
Actual	46.9	48.4	56.3	62.9	66.6	101.6	16.7
2. Share of Gas in GDP (%)							
Planned	0.9	1.2	1.2	1.2	1.3	3.4	1.6**
Actual	0.9	0.8	0.9	1.2	1.1	1.3	1.1**
3. Expected Reserve (TNSCF)							
Associated	27.5	28.3	28.5	29.1	29.3	30.3	2.0
Non-Associated	3.0	3.0	3.1	3.3	3.3	3.7	4.5
	24.5	25.4	25.3	25.9	25.9	26.6	1.7
4. Actual Reserve (TNSCF)*							
Associated	17.7	19.1	19.1	20.4	20.4	20.9	3.4
Non-Associated	1.4	1.4	1.4	1.5	1.6	1.9	6.1
	16.3	17.8	17.7	18.9	18.9	19.0	3.2
5. Average Production (MNSCF/Day)							
Associated	663.8	701.8	987.1	1005.8	1119.1	1495.0	17.6
Non-Associated	440.3	448.8	645.5	642.8	690.3	682.0	9.1
	223.5	253.0	341.6	363.0	428.8	813.0	29.5
6. Natural Gas Revenue							
Planned	61	66	59	63	75	79	5.3
Actual	61	66	57	63	58	73	3.9
7. Share of Natural Gas in Total Revenues (%)							
Planned	3.3	2.9	3.0	3.1	3.7	3.7	3.3***
Actual	3.3	2.8	2.5	3.4	3.2	3.2	3.0***
8. Total Employment in Gas Sector							
- Omani	139	136	177	175	158	174	4.6
- Expatriate	55	59	86	96	90	102	13.1
- Omanization (%)	84	76	91	79	68	72	-3.0
	39.6	43.7	48.6	54.9	57.0	58.6	8.2

* In P.D.O., including 0.3 TNSCF in Gulf Stream Companies area in 1998

** Indicates the average share of Gas in GDP

*** Indicates the average share of Gas in Total Revenue

Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol. 3.

Table 3.11: Main Economic Indicators for Agriculture Sector in the Fifth Five-Year Development Plan (1996-2000).
(Ml. RO.)

Detail	Fifth Five-Year Development Plan						Average Annual Growth Rate during the Plan period (%)
	1995	1996	1997	1998	1999	2000	
1. Value Added of Sector	95.1	100.7	106.7	102.3	106.7	101.1	1.2
2. Share of Sector in GDP (%)	1.8	1.7	1.8	1.9	1.8	1.3	1.7*
3. Agricultural Exports (Plants & Animal Products)	19.3	16.9	17.8	16.2	12.7	12.5	-8.3
4. Relative Share of Agricultural Exports in Total Non-Oil Exports	10.6	9.8	8.8	8.1	6.3	5.0	-14.0

*Indicates the average share of the sector in GDP for the plan period

Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol. 3.

- (iv) The contribution of the sector's exports in non-oil exports fell from 13.0% in 1995 to 7.5% in 2000 while production in the sector decreased by 3% annually during the plan period. This was a result of a decrease in the quantity from 139.9 thousand tons in 1995 to 120.4 thousand tons in 2000;
- (v) Exports of fish deteriorated by an annual average rate of about 10%, from 59.2 thousand tons in 1995 to 34.9 thousand tons in 2000. (MONE 2002d)

As mentioned earlier, it was expected for this sector to play a more important role in GDP than its present humble participation. But there are numerous challenges which face the sector at present and which stand as stumbling block against its development. These need to be overcome if the sector is to participate effectively in the national economy and enhance its share in gross domestic product. According to the Ministry of National Economy (MONE 2002d), despite the measures taken to improve the fisheries sector during the fifth five-year development plan, the sector still faces a series of challenges that are preventing it from accelerating its growth rates. The most important challenges are:

- Commercial fishing in Oman is dominated by the small number of companies to whom fishing licenses have been granted. A mere five Companies. The activities of these five Companies concern the brokerage for large pelagic fishes (tuna), trading in demersal fishes and the sale of licences for catching large pelagic fish (50 thousands ton) to foreign fishing ships in exchange for a fixed sum and the sale of licences for demersal fish (28 thousands ton) in return for 20% of the catch. The total returns for the Omani Companies, (Oman Economy) is not more than RO. 3.7 million. Foreign vessels sell their entire catch pelagic fish and 80% of the demersal fish abroad. This indicates the lack of interlacing economic relationships between this and the other national economy sectors. What is more, the labour force in these foreign fishing ships composed of 100% foreign workers which completely deny any employment opportunities for Omanis. Between 40% and 70% of the total catch from these ships is thrown back into the sea which undoubtedly causes a huge loss to the Omani economic resources, and considerable pollution to the marine environment and diminution of natural wealth as well.
- The databases that are available about fisheries and fishing grounds are poor and insufficient. This in turn causes problems for research institutes, and leads to inadequately staff to lead the research programmes;
- The low standards of the efficiency of traditional fishing boats is characterized by a lack of storage facilities, the absence of safety measures, poor transport methods, inadequate landing facilities and weaknesses in structural design and sailing power;
- A knowledge and techniques shortage among the traditional fishermen (MONE 2002d: 71).

Moreover, as will be shown later in Chapter 5, there is a lack in government investment. This had its impact on the sector. For instance, the provision of government financial support for the private sector during the fifth five-year plan, the

Table 3.12: Main Economic Indicators for Fisheries Sector in Fifth Five-Year Development Plan (1996-2000.
(MI. RO.)

Detail	1995	Fifth Five-Year Development Plan					Average Annual Growth (%)
		1996	1997	1998	1999	2000	
1. Value Added of Sector (Mn. R.O.)	52.2	46.4	52.8	50.9	52.3	48.7	-1.4
2. Share of Fisheries in GDP (%)	1.0	0.8	0.9	0.9	0.9	0.6	*0.8
3. Export of Fish (Thousand Tonnes)	59.2	56.5	55.9	45.6	29.9	34.9	-10.0
4. Export of Fish (Mn. R.O.)	23.6	24.3	26.0	19.1	14.0	18.6	-4.7
5. Share of Fisheries in Non-Oil Export (%)	13.0	14.0	12.8	9.6	7.0	7.5	-10.4
6. Production of Fish (Thousand Tonnes)	139.9	121.6	119.0	106.2	108.8	120.4	-3.0

*Indicates the average share of Fisheries in GDP

Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol. 3.

government soft loans for the agriculture, fisheries and handicrafts sectors during the plan period decreased to less than its planned level (MONE 2002e).

3.5.6 Industry

The industrial sector is assumed to play a leading role in the Sultanate's economy. The depletion of oil reserves has created a greater responsibility on it for sustaining the country's developmental process and accelerating manufacture so that can assume a pivotal role. In fact the government is working hard to this end and many incentives to this vital sector are being granted. The Sultanate has allowed foreign investors to own up to 100% in any project regarded as vital in the development process. Additionally, there are ready-built plants distributed by the government to be leased by the founder over a period of 25 years and renewable, at little more than nominal rents. Moreover, tax incentives and exemptions from corporation income tax are granted up to 10 years. Furthermore, there is an exemption from paying customs duties on to any imported industrial materials to be used for manufacturing and which are not available locally. Because the private sector is the main driving force of industrial development in any country, the government has indeed encouraged foreign direct investment in the hope of stimulating the growth of the industry sector

in the Sultanate as well as to strengthening the private sector so that it can play its role in the manufacturing industry.

Table 3.13 shows the development in the manufacturing sector in the Sultanate. It is clear that except for the year 1996, the value-added element of the sector was increasing. From RO. 247 ml. in 1995, it rose to RO. 409.3 ml in 2000, with an average annual growth of 10.6%. This was accompanied by an increase in non-oil manufacturing exports of Omani origin except for the year 1996. However, growth in the share of the sector in GDP terms was unsteady and the average annual growth was only 4.5% which, in fact, was less than the 4.7% of 1995. This was as a result of the negative growth of the share of the sector in GDP in all years except 2000.

Table 3.13: Main Economic Indicators for Manufacturing Sector in the Fifth Five-Year Development Plan (1996-2000) (MI. RO.)

Detail	1995	Fifth Five-Year Development Plan					Average Annual Growth (%)
		1996	1997	1998	1999	2000	
1. Value Added of Sector							
- Planned	241.0	274.0	353.0	308.0	337.0	429.0	12.2
- Actual	247.4	237.3	240.6	251.3	262.3	409.3	10.6
2. Share of Sector in GDP (%)	4.7	4.0	4.0	4.6	4.3	5.4	4.5*
3. Non-Oil Manufacturing Exports of Omani Origin	136.5	128.4	154.5	159.4	171.8	211.5	9.2
4. Omanization in Sector (%)	19.0	25.0	28.0	31.0	32.5	32.2	11.1
5. Banking Finance for the Sector	65.2	86.7	125.4	173.5	244.5	242.2	

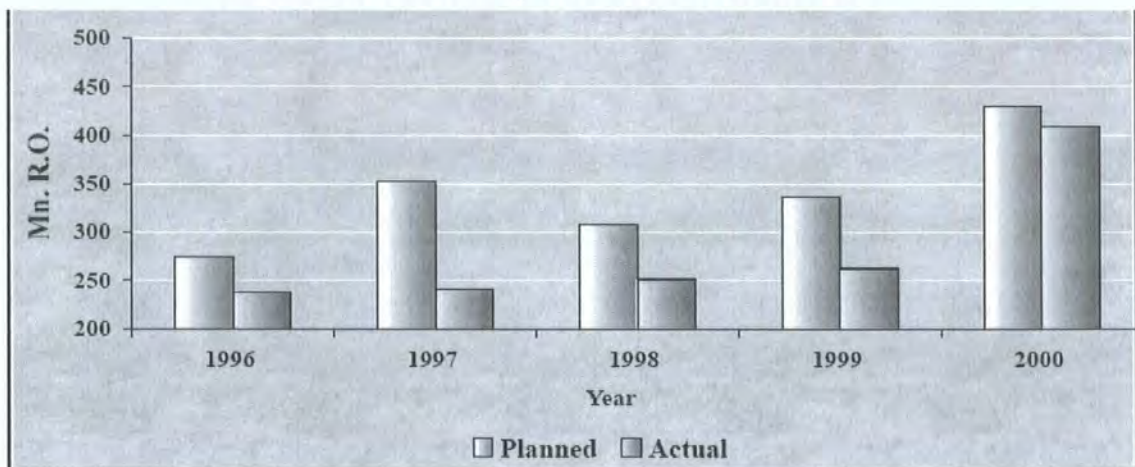
* Indicate the average share of Manufacturing in GDP

Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol.3.

As a comparison between the planned and actual growth, by the end of the plan period, the actual relative contribution of the sector to GDP declined to 5.4% compared to 6.5% in the plan. This is attributed to the low growth rate of the sector on the one hand, and the increase of the relative contribution of the oil sector in 2000 on the other, which, in turn is attributed to the noticeable increase of prices recorded in that year. The annual growth rate of the sector was less than planned. It was 10.6%

compared to the target of 12.2% in the plan. A negative growth rate, during the period of the plan was recorded by the refined oil products industry which reached an annual rate of about 8.3%, while the rest of manufacturing achieved an annual growth rate that did not exceed 4.8%. The incorporation of the liquefied natural gas project in the plan had a pronounced effect on improving the performance indicators of the sector. Exports of industrial non-oil products of Omani origin increased from OR. 136.5 million in 1995 to about OR. 211.5 million in 2000. The annual growth rate of non-oil exports of Omani origin, however, averaged 9.2% compared to the Plan target of 14.6% (MONE 2002d).

Chart 3.6: The actual and Planned GDP for the Manufacturing Sector during the Fifth Five-Year Development Plan period (1996-2000).



Source: Ministry of National Economy (2002), Sixth Five-Year Development Plan, Vol.3.

3.6 Conclusion

The chapter has shown the characteristics of the Omani economy. It has also analysed some of the macroeconomic policies that were adopted to remedy the fiscal imbalances in addition to helping boost the contribution of the non-oil sectors in gross domestic product in the light of the expected depletion of the Omani crude oil reserves. The output of the diversification policy was analysed and found insignificant. Except for industry, the contributions of the other non-oil sector decreased on the one hand, while on the other the discrepancies between the planned

growth rates were found immense. The weak performance of the economic sectors has led to a slow creation of jobs. Hence the Omanization policy, to replace the expatriate workers with Omanis and to help in reducing the high level of expatriate worker's remittances that erode a significant amount of domestic savings, has not achieved its objectives. This is attributed to the low profitability of the private sector corporations which led these businesses to offer the Omani jobseekers unattractive salaries. These corporations, however, have always had expatriate workers as alternatives. These weaknesses, in fact, insist on the pressing need for fiscal reform in order to improve the standing of the economic sectors and the macroeconomic imbalances. This has been combined by the high level of dependency of the economy on oil revenues, a huge role of the state in the economy, very low non-oil revenues, a high ratio of government expenditure and, finally, the anticipated rapid exhaustion of the oil reserves. A mere 17-20 years it is estimated.

Given the many weaknesses and threat facing the Omani economy, the next chapters will examine the capability of the fiscal policies in the Sultanate to carry out the planned objective of achieving long-run sustainable development.

CHAPTER 4: GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH: EMPIRICAL RESULTS FOR OMAN

4.1 Introduction

As stated in Chapter 3, the Sultanate of Oman's economy has experienced persistent economic growth, financial stability and confidence. The Sultanate's economic achievement and growing private sector confidence as well as its developing participation in the economy have been mirrored in the prosperity and well-being of the Omani population in general. Nonetheless, this inspiring economic performance was supported in part by an expansionary fiscal policy. For instance, the official budget deficit averaged about 7.3 percent of GDP during the study period. This, in fact, had its costs. Financing this unsustainably large fiscal deficit entailed a considerable drawdown of foreign and domestic investments of the State General Reserve Fund (SGRF) as well as a loss in foreign exchange reserves of the monetary authority and a sizable accumulation of domestic and foreign debt. The deterioration of public sector saving coupled with the Omani private sector's low propensity to save harmfully affected the saving-investment balance and increased the dependence of the economy on foreign saving and investment*. Based on the above mentioned discussion, the challenge now facing policymakers is how to uphold the impressive economic performance of the last period while sustaining a macroeconomic balance.

These challenges, in fact, require considerable fiscal consolidation, supported by efforts to make expenditure cuts: strengthening of the mobilization of public and private savings; developing non-oil revenues; diversification of the economy out of its still-excessive reliance on the oil sector; and promoting productivity and efficiency in fiscal policies (Mansur and Treichel 1999: 1).

* For more details, see Chapter 3.

Economists cannot accurately answer the very essential question of why some countries grow rapidly and other countries grow slowly. In the final analysis there are no generally accepted economic theories capable of explaining, with any degree of success, the process of economic growth. One of issues that has received considerable attention has been the extant of the role of government size. Does a raise in government size hinder or accelerate economic growth? Most previous empirical work has focused on isolating various factors which affect the growth process. Economic regulations may diminish economic efficiency and waste many of the benefits from government activity. Moreover, a government sector less efficient than a private sector may lead to slower growth (Carr 1989: 267).

The aim of this chapter is to examine the impact of government expenditures, as well as other determinants, on output in the Omani economy. The chapter also intends to examine the causal relationship between government expenditure, disaggregated into investment and recurrent spending, and GDP/GDP per capita. The perception of the determinants of output will reveal the role of fiscal policies in Oman's economic development and how such policies affect its diversification policy. The results of the causal relationship among fiscal policy variables and GDP/GDP per capita will help to identify the temporal precedence of the variables. Accordingly, if there is either a bidirectional or unidirectional causality between GDP/GDP per capita and government expenditures in the Omani economy, that is to say causality running from government expenditures to GDP/GDP per capita, this would further substantiate the assumption of the dominant role of fiscal policy in determining GDP/GDP per capita. Hence, a policy aiming to control the growth of government spending might hinder the growth of GDP/GDP per capita and, as a result, perhaps weaken the diversification policy[†] as well. If however, the causality running from GDP/GDP per capita to government expenditures or if there is no causality, rationalizing the size of government, as a remedy to face the budgetary deficit, would be an appropriate fiscal instrument in the case of the Sultanate of Oman.

[†] Diversification policy requires a huge volume of government investment to be allocated between the Omani economic sectors.

Moreover, the contemporaneous relationship between disaggregated public expenditure and GNP will be examined. The Johansen cointegration test and the Granger causality test will be deployed to determine the long-run relationship as well as the direction and pattern of causality between disaggregated public expenditure and GNP. If the empirical evidence demonstrates the existence of any causal relationship running from government expenditure to GNP or GNP per capita, which supports the Keynesian hypothesis, then a cut in government expenditure may retard GNP or GNP per capita. However, if it supports the Wagnerian law[‡], which states that income causes government expenditure or, in the absence of any type of causality, then the appropriate fiscal policy to control the growth of budgetary deficit and foreign public debt would be to recommend a cut in government expenditure.

4.2 The Impact of Government Expenditure on GDP in Oman

The Sultanate of Oman's stance of fiscal policy differed across five distinct sub-periods covering 1971-2002. Fiscal policy was expansionary and deficits grew from 1981-86 since despite a falling oil price, expenditure was not restrained. As a reaction to the sharp deterioration in oil prices during 1987-91, the stance of fiscal policy became contractionary. This was principally driven by restrictive expenditure policies. From 1992-95 two stances can be noticed in fiscal policy behavior. At the beginning of the period, fiscal policy was expansionary. Of course, the Gulf War was one of the motivations behind this. However, it then turned moderately contractionary. Fiscal policy became increasingly contractionary, from 1996-97 in line with the objective adopted at that time to reach a balanced budget by 2000. Moreover, the composition of expenditure changed substantially between 1981 and 1997. The share of recurrent expenditure rose considerably compared with investment expenditure (Mansur and Treichel 1999: 19)

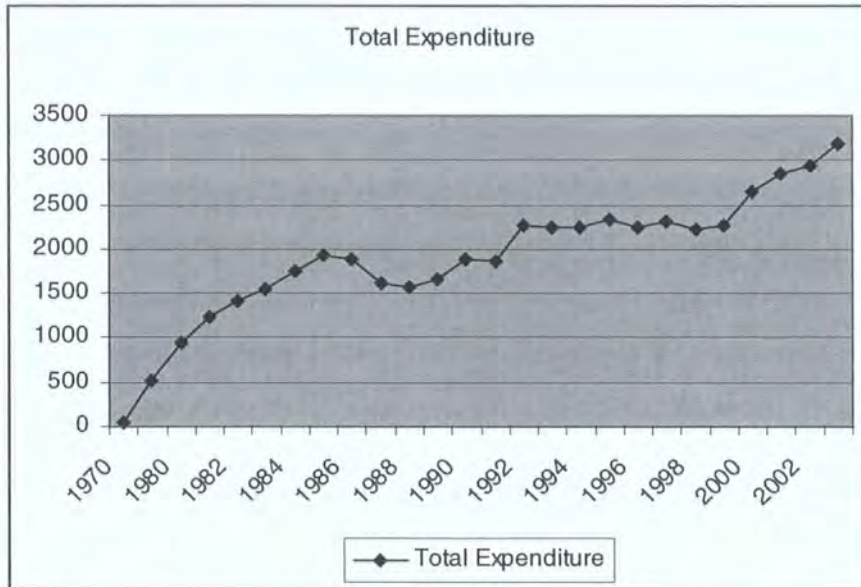
[‡] The Keynesian hypothesis and Wagnerian law will be discussed briefly later in this chapter.

Table 4.1: The Trend of Total Government Expenditure

Year	Total Expenditure Mln. RO.	Total Expenditure To GDP
1970	46.0	43.9
1975	509.5	70.3
1980	949.8	43.4
1981	1,223.7	46.4
1982	1,412.9	50.9
1983	1,546.9	52.7
1984	1,760.3	54.5
1985	1,928.4	53.7
1986	1,886.8	60.0
1987	1,609.1	48.5
1988	1,567.2	48.6
1989	1,665.8	46.2
1990	1,887.4	42.0
1991	1,868.1	42.8
1992	2,258.7	47.2
1993	2,242.4	46.7
1994	2,252.9	45.4
1995	2,331.0	43.9
1996	2,253.7	38.4
1997	2,307.3	37.9
1998	2,221.6	41.0
1999	2,269.0	37.6
2000	2,656.2	34.8
2001	2,860.2	37.3
2002	2,939.5	37.7
2003	3,188.9	38.2

Source: Ministry of National Economy, Yearly Statistical Book 2004.

Chart 4.1: The Trend of Total Government Expenditure



Source: Table 4.1

While the Classical economists oppose intervention, believing that market forces swiftly bring the economy to long-run equilibrium through adjustment in the labor market, the Keynesian school of thought defends the use of fiscal policies to boost economic activity in times of recessions. Thus, Keynesians prescribe expansionary fiscal policies to avoid long recession. They alleged that the assumed self-regulating mechanisms in the economy fail to lead the economy back to equilibrium mainly due to rigidities in the labour market. Taking another side, Classics and Neoclassicals judge fiscal policies ineffective on the grounds of the well-known crowding-out phenomenon[§], i.e., as public spending rises, public goods are substituted for private goods, and hence, causing lower private spending, for instance, on transportation, health, education, and other goods and services. Moreover, when governments borrow heavily to fund public expenditure, pressures in the credit market result in higher interest rates which hamper private investment on the grounds that

[§] The existence of this phenomenon in the Omani economy will be examined in the next chapter.

effectiveness of fiscal policies may be deterred by the relatively long time lags from recognizing a need for action until realizing the results of the policies. (Abu-Bader and Abu-Qarn 2003: 570)

Kweka and Morrissey (1999: 2) stated that the relationship between economic growth and government spending is an important subject for analysis. On theoretical grounds, another major debate has been on whether or not the public sector enhances the long run steady growth in the economy. The general view is that public expenditure, principally on physical infrastructure or human investment, can be growth-augmenting but the financing of such expenditures can be growth-retarding. This is as a result of deterrent effects. The overall impact depends on the trade-off process which usually holds between the productivity of public expenditure and the distortionary effects of taxes. Government activity may directly or indirectly increase total GDP through its interaction with the private sector.

Furthermore, according to Abu-Bader and Abu-Qarn (2003:570), unlike the Neoclassical growth model as formulated by Solow (1956), which did not prescribe the channels through which government spending may influence long-run economic growth, the new growth theorists suggest the possibility of both a temporary effect from government intervention during the transition to equilibrium, and a probable long-term effect from government spending on economic growth. Hence, the debate that fiscal policies may stimulate economic growth has gained additional support with the introduction of new growth theories.

When government provides a host of goods and services for the population in order to achieve various economic and social objectives, the efficiency with which these goods and services are provided is important, not only in the debate on the size of government and the possible role of the private sector but also in macroeconomic stabilization and economic growth. By combining labour with other inputs, government can be viewed as producer, engaged in the production of different outputs. As mentioned in Chapter 2, government that produces more of these outputs

while spending less on inputs would be more efficient than government that produce fewer outputs and use more inputs. (Gupta, et al. 2002: 5)

Further example for that, when government taxation induces misallocation of resources, as public goods can be provided inefficiently, the public sector may engage in excessive or unproductive expenditures, and government-induced distortions may have disincentive effects. Theory offers little guidance. Empirically, researchers on this issue have said: firstly, no consistent evidence exists for a significant relationship between public spending and growth in a positive or negative direction; secondly, outcomes and evidence differ by country and region, the analytical method employed, and the classification of public expenditures. (Kweka and Morrissey 1999: 2)

Most developing countries, including the Sultanate of Oman, have experienced increasing levels of public expenditure over time. According to Kneller, et al. (1998), and as mentioned earlier in Chapter 2, this has tended to be associated with increasing fiscal deficits, suggesting their limited ability to raise sufficient revenue to finance higher levels of expenditure. These rising deficits tend to have an adverse effect on growth. As a result, the impact of spending on economic growth in a developing country such as the Sultanate of Oman will depend not only on the productivity and composition of expenditures, but also on how they are financed, as will be discussed in Chapter 6 (Kweka and Morrissey 1999: 2).

As a solution, the Government of the Sultanate of Oman has long been adopting many policies to rationale public expenditure. However, such policies, mostly, do not give sufficient necessary attention to the components of the public expenditure (e.g. productive and unproductive) and to their impact on growth, particularly, in the long run.

4.2.1 Growth of Government Size: Wagner's Law and Keynesian

Relation

After the end of World War II, the global economic system was designed so as to offer scope for increased economic interdependence while allowing national governments to pursue their own welfare and development goals. Keynes knew well that the pursuit of national full employment required a global system that would allow governments to adopt anti-cyclical domestic policies; set wage policies and undertake anti-poverty measures that would be consistent with the particular government's social goals; and choose how fast it wanted to increase its rate of economic growth. The objectives of the welfare state are clustered under four general headings: (i) it should support living standards; (iii) reduce inequality; (ii) avoid costs explosion and; deter behaviour conducive to moral hazard and adverse selection. All these objectives should be achieved minimizing administrative costs and the abuse of power by those in charge of running it. However, the economies of the welfare states, witnessed an astonishing and unaffordable growth in public spending in most countries. As a result, the optimality of government size and its impact on output has received a great attention (Adelman 1999). There are two opposing frameworks explain the relationship between government size and output; Wagnarian Law and Keynesian view

Writing in 1890, Adolph Wagner formulated the 'Law of the Increasing Extension of State Activity', commonly referred to as Wagner's Law. It is one of the theories that emphasize economic growth as the fundamental determinant of public sector growth, and has since been the focus of many empirical studies (Yuk 2005). The notion that there is a long-run tendency for government activities to grow relative to economic activity was proposed by Wagner. Wagner's Law states that, as real income per capita of a nation increases, the share of public expenditures in total expenditure increases. According to him, there are three main reasons, which support this hypothesis (Sideris 2006):

- During industrialisation, the administrative and regulatory functions of the state would substitute public for private activity;
- Economic growth would escort to an increase in cultural and welfare services, which are assumed to be income elastic;
- State involvement would be required to provide the capital funds to finance large-scale projects made to satisfy the technological needs of an industrialised society, not met by the private sector.

In other words, Wagner's law states that government grows because there is an ever-increasing demand for public goods and for the control of externalities. Based on these arguments, the law also implies causality running from national income to public sector expenditure. Consequently, public expenditure, according to this, is considered as endogenous to the growth of national income, in contrast to the Keynesian view, which considers public spending as an exogenous policy instrument which can affect growth in national product.

As cited by Demirbas (1999) a test of Wagner's Law is more practical if it focuses on the time series behaviour of public expenditure in a country for as long a time period as possible, rather than on a cross-section of countries at different income levels. According to Demirbas (1999) There are at least six versions of this law which have been empirically investigated. (see Table: 4.2)

Table 4.2: Six Versions of Wagner's Law

	Functional form	Version
1	$LE = a + bLGNP$	Peacock-Wiseman [1968]
2	$LC = a + bLGNP$	Pryor [1969]
3	$LE = a + bL(GNP/P)$	Goffman [1968]
4	$L(E/GNP) = a + bL(GNP/P)$	Musgrave [1969]
5	$L(E/P) = a + bL(GNP/P)$	Gupta [1967]
6	$L(E/GNP) = a + bLGNP$	"Modified" version of P-W suggested by Mann [1980]

Source: Demirbas (1999)

According to Yuk (2005), Wagner's Law is one of the theories that emphasize economic growth as the primary determinant of public sector growth, and has since been the focal point of many empirical studies. Wahab (2004), intended to separate the effects of accelerating and decelerating economic growth in government expenditure for OECD, EU and G7 countries for the period 1950-2000. He found evidence of Wagner's law for EU countries only. However, his conclusion suggested that, for all countries in general, government expenditure increased less than proportionately with accelerating growth and decreased more than proportionately with decelerating economic growth. In contrast, a study by Kolluri et al. (2000), which focused on the relationship between economic growth and certain components of public expenditures of the G7 countries for the period 1960-1993, presented inconsistent results. Wagner's Law was proved for all 7 countries, i.e., there were signs of long-run equilibrium relationships between different categories of government expenditure and economic growth. For the UK in particular, Wagner's Law was confirmed for all three categories of public expenditure given the positive signs on the coefficients. A disadvantage of the studies by Wahab (2002) and Kolluri et al. (2000), however, is that it did not study the Keynesian View. In a previous study by Ghali (1999), he studied the causal relationships between government expenditures and economic growth for ten OECD countries using a quarterly data set covered the period 1970:1 to 1994:3. His results supported the Keynesian view, but there was no evidence of Wagner's Law. In another study by Oxley (1994), which focused on the UK exclusively for the period 1870 to 1913, his results suggested a unidirectional causality from output to public expenditure, thereby supporting Wagner's Law.

Regarding Keynesian relation, Keynes argues that government spending, particularly increases in government spending, boost economic growth by injecting purchasing power into the economy. According to Keynes, government could reverse economic recessions by borrowing money from the private sector and then returning the money

to the private sector through various spending programs. Keynesian theory asserted that government spending, especially deficit spending, could provide short-term stimulus to help end a recession or depression. The Keynesians even argued that policymakers should be prepared to reduce government spending once the economy recovered in order to prevent inflation, which they believed would result from too much economic growth.

Keynesian economics was very influential for several decades and dominated public policy from the 1930s–1970s. The theory has since fallen out of favour, but it still influences policy discussions, particularly on whether or not changes in government expenditure have transitory economic effects. For example, some lawmakers use Keynesian analysis to argue that higher or lower levels of government spending will stimulate or diminish economic growth. Moreover, in traditional Keynesian macroeconomics, high levels of government consumption are probable to increase employment, profitability and investment via multiplier effects on aggregate demand. Thus, government spending raises aggregate demand, leading to increased output depending on the size and efficiency of expenditure multipliers (Abdulwahid 1993).

While the Classical economists oppose intervention, believing that market forces swiftly bring the economy to long-run equilibrium through adjustment in the labour market, the Keynesian school of thought defends the use of fiscal policies to boost economic activity in times of recessions. Thus, Keynesians prescribe expansionary fiscal policies to avoid long recession. They alleged that the assumed self-regulating mechanisms in the economy fail to lead the economy back to equilibrium mainly due to rigidities in the labour market. Taking another side, Classical and Neoclassical economists judge fiscal policies ineffective on the grounds of the well-known crowding-out phenomenon**, i.e., as public spending rises, public goods are substituted for private goods, and hence, causing lower private spending, for instance, on transportation, health, education, and other goods and services.

** The existence of this phenomenon in the Omani economy will be examined in the next chapter.

Moreover, when governments borrow heavily to fund public expenditure, pressures in the credit market result in higher interest rates which hamper private investment on the grounds that effectiveness of fiscal policies may be deterred by the relatively long time lags from recognizing a need for action until realizing the results of the policies. (Abu-Bader and Abu-Qarn 2003: 570).

Due to the shortage in capital accumulation, most of the developing countries heavily relied on public funds for economic development regardless whether they shared Keynesian economic philosophy. Thus, Keynesian policies implicitly or explicitly, became the main economic tool in these countries due to the state of the economy. Therefore, developing countries used fiscal policy to invest in various sectors in their economies, as they expected that such high level of government expenditures would lead to economic growth as predicted by Keynes. Thus, causal relationship runs from government expenditure to economic growth in Keynesian paradigm as opposed to Wagner's law. The main difference is that Wagner's law is based on the experience of the industrialising countries, while Keynesian paradigm is related to economic development. Thus, they are related to different stages of economic development.

Kweka and Morrissey (1999: 2) stated that the relationship between economic growth and government spending is an important subject for analysis. On theoretical grounds, another major debate has been on whether or not the public sector enhances the long run steady growth in the economy. The general view is that public expenditure, principally on physical infrastructure or human investment, can be growth-augmenting but the financing of such expenditures can be growth-retarding. This is as a result of deterrent effects. The overall impact depends on the trade-off process which usually holds between the productivity of public expenditure and the distortionary effects of taxes. Government activity may directly or indirectly increase total GDP through its interaction with the private sector.

Furthermore, according to Abu-Bader and Abu-Qarn (2003:570), unlike the Neoclassical growth model as formulated by Solow (1956), which did not prescribe the

channels through which government spending may influence long-run economic growth, the new growth theorists suggest the possibility of both a temporary effect from government intervention during the transition to equilibrium, and a probable long-term effect from government spending on economic growth. Hence, the debate that fiscal policies may stimulate economic growth has gained additional support with the introduction of new growth theories.

When government provides a host of goods and services for the population in order to achieve various economic and social objectives, the efficiency with which these goods and services are provided is important, not only in the debate on the size of government and the possible role of the private sector but also in macroeconomic stabilization and economic growth. By combining labour with other inputs, government can be viewed as producer, engaged in the production of different outputs. As mentioned in Chapter 2, government that produces more of these outputs while spending less on inputs would be more efficient than government that produce fewer outputs and use more inputs. (Gupta, et al. 2002: 5)

Further example for that, when government taxation induces misallocation of resources, as public goods can be provided inefficiently, the public sector may engage in excessive or unproductive expenditures, and government-induced distortions may have disincentive effects. Theory offers little guidance. Empirically, researchers on this issue have said: firstly, no consistent evidence exists for a significant relationship between public spending and growth in a positive or negative direction; secondly, outcomes and evidence differ by country and region, the analytical method employed, and the classification of public expenditures. (Kweka and Morrissey 1999: 2)

According to growth theories, growth is driven by government variables. Based on Keynesian theory all types of government expenditure expected to have positive signs, due to multiplier effects, while in the models of Endogenous theory such as that of Landau (1986) and Barro (1990), productive spending is growth-enhancing,

while unproductive expenditure is growth-retarding. In these models government expenditures is categorized into productive (e.g. investment) and unproductive (e.g. recurrent expenditure, foreign debt service payments and participation and support expenditures). It is expected here that government investment and recurrent expenditure will have positive sign, government participation and support expenditure, and foreign debt service expenditure are expected to affect GDP negatively. Finally, since growth theories suggest that growth is driven by the export index, export value as a share of GDP is included in the model. Export volume is also expected to affect growth positively

4.2.2 Data and the Utilized Variables

A sample of annual observations on time series covering the period from 1971 to 2002 was employed. Series are in current domestic currency. Most series were collected from the Ministry of National Economy, while the remaining were obtained from the World Bank (International Development Indicators), since there are some difficulties regarding the coverage of the official Omani budget and reconciliation of its monetary statistics. In some years there have been large discrepancies. Another issue is that although the authorities provide an analytical presentation of the budget, which includes the accounts of municipalities and the regional administrations, the official budget presentation does not cover all the fiscal activities, since it does not include data on the operations of the public and semi-public social security funds, SGRF transactions, as well as those of the Oil Fund.. (Chabrier and Seade 2001: 51)

To assess the relationship between government expenditures and GDP growth, an OLS method regression was utilized. The dependent variable was GDP growth, whereas the explanatory variables are government investment expenditure, government recurrent expenditure, government participation and support expenditure, foreign debt service expenditure and, finally, the value of exports. These explanatory variables are as a proportion of GDP. The chapter tries to examine the impact of government variables on GDP growth. According to growth theories,

growth is driven by government variables. Based on Keynesian theory all types of government expenditure expected to have positive signs, due to multiplier effects, while in the models of Endogenous theory such as that of Landau (1986) and Barro (1990), productive spending is growth-enhancing, while unproductive expenditure is growth-retarding. In these models government expenditures is categorized into productive (e.g. investment) and unproductive (e.g. recurrent expenditure, foreign debt service payments and participation and support expenditures). It is expected here that government investment and recurrent expenditure will have positive sign, government participation and support expenditure, and foreign debt service expenditure are expected to affect GDP negatively. Finally, since growth theories suggest that growth is driven by the export index, export value as a share of GDP is included in the model. Export volume is also expected to affect growth positively

4.2.3 Model Specifications

In order to examine the effect of government expenditures on economic growth, a model based on Landau (1986) and Barro (1990) was employed. The final regressors are: GDP growth, as a dependent variable; the share of government investment expenditure, government recurrent expenditure, government participation and support expenditure (subsidies), foreign debt service expenditure, and the value of exports as a share of GDP; all as explanatory variables. The notations of these variables as follows:

- Y is GDP growth.
- GI is government investment expenditure as a share of GDP.
- GR is government recurrent expenditure as a share of GDP.
- PS is government expenditure allocated to participation and support, as a share of GDP.
- DS is government expenditure allocated to foreign debt service payments, as a share of GDP.
- EX is export value as a share of GDP.

Accordingly, the model will take the following form:

$$Y = f(GI, GC, PS, DS, EX) \quad (1/4)$$

The series were converted to their natural logarithm form. Based on the above-mentioned model, the regression will be performed according to the following OLS equation:

$$Y = \delta_1 + \delta_2 * GI + \delta_3 * GR + \delta_4 * PS + \delta_5 * DS + \delta_6 * EX + \varepsilon \quad (2/4)$$

4.2.4 Time Series Properties

It is essential to test the time series properties of the variables under investigation for unit roots. This helps in avoiding possible problems in estimating spurious relationships. If a variable is stationary, i.e., it does not have a unit root, it is said to be $I(0)$ or, in other words, integrated of order zero. If a variable is not stationary in its level form then it has unit roots. More generally, the series X_t will be integrated of order d , that is, $X_t \sim I(d)$, if it is stationary after differencing d times, so X_t contains d unit roots. One of the unit roots test is the Augmented Dickey Fuller (ADF) test, which is based on estimating the following regression (Fasano and Wang 2001: 15):

$$\Delta X_t = \psi_0 + \psi_1 t + \psi_2 X_{t-1} + \sum_{i=1}^k c_i \Delta X_{t-i} + \varepsilon_t \quad (3/4)$$

Where ΔX donate the first differences of the series, k is the number of lags and t is time. The practical rule for establishing the value of $[k]$... is that it should be relatively small in order to save degrees of freedom, but large enough not to allow for the existence of autocorrelation in $[\varepsilon_t]$. For example, if for $[k]=2$ the Durbin-Watson autocorrelation statistic is low, indicating first order autocorrelation, it would be sensible to increase $[k]$ with the hope that such autocorrelation will disappear" (Charemza and Deadman 1992: 135)^{††}.

^{††} Cited in Demirbas (1999)

The null hypothesis for unit roots test is $H_0: \psi_2 = 0$. The test will be applied to each of the series in order to determine whether they have unit roots.

Koop (2005: 164) indicated that according to the theory, if one series or more contain unit roots then the series are nonstationary. As a result, to avoid the probable spurious regression problem and misleading results, OLS estimation cannot be performed until a test to check for unit root should be then adopted, such as the Augmented Dickey- Fuller test (ADF) (Kappagoda 2001).

Augmented Dickey-Fuller (ADF) is utilized to test for stationarity of the entire series. The test results of the variables are presented in Table 4.3

According to the table, only the variable Y is stationary. The remaining series are nonstationary. Any economic time series can be integrated in its level. In this case cointegration approach can be utilized. According to cointegration theory, such relationships exist, and hence, simply using differenced data is mostly not an appropriate strategy. (Davidson and MacKinnon 1993: 723)

Table 4.3: Empirical Result of Testing for Stationarity Using Augmented Dickey Fuller (ADF)

Series	Outputs of ADF Test
Y	-2.816433*
GR	-2.470067
GI	-1.525735
PS	-1.985052
DT	-2.433951
EX	-1.559722

* Indicates statistical significant level of rejection of the null hypothesis of a unit root at the 10 per cent.

If time-series variables are found to be nonstationary, tests can be performed in order to check if they are cointegrated. An identified cointegrating relationship among

variables implies the existence of a long-run equilibrating relationship among those variables. Generally, a set of variables are said to be cointegrated if a linear combination of their individual integrated series, which are $I(d)$, is stationary. Intuitively, if $X_t \sim I(d)$ and $Y_t \sim I(d)$, a regression is performed, such as:

$$Y_t = \delta * X_t + v_t \quad (4/4)$$

X_t and Y_t are said to be cointegrated if the residuals from the regression are $I(0)$, if residuals are stationary, differences among the variables tend to die out, and hence the variables are thought to exist in a long-run equilibrating balance. Constant and trend values can be included in the equation as needed (Fasano and Wang 2001: 15-17).

According to Koop (2005: 168, 169), Engle and Granger (1991: 13- 15) and Pendyck and Rubinfeld (1998: 513- 515), to test the integrated series that follow random walks, for cointegration, simply to test whether there is a unit root in the cointegrating regression. This can be performed using the Engle-Granger test, in two steps. First, is to regress Y on X and save the residuals. Second, is to run the Augmented Dickey-Fuller test (ADF). If there is no justification to accept the null hypothesis of no cointegration, then conclude in favour of cointegration and vice-versa. However, it worth mentioning here that according to Harris (2003: 81), the normal t -statistics on (p) is not applied in this case. "Fortunately, Mackinnon (1991), has linked the critical values for this particular test to a set of parameters of an equation of the response surfaces". Hence, these t -statistics on (P) should be applied. (see also Davidson and MacKinnon 1993: 722).

To establish this, the Engle-Granger two-step procedure was employed. This was done by generating residuals from the long-run equation of the non-stationary variables, which were then tested for stationarity using the ADF tests. The residuals were found to be stationary.

Based on these results, the outputs of the cointegration regression are summarized in the next section.

4.2.5 The Empirical Results for Oman

The regression was run using the OLS method. According to Studenmund (2001), There are at least three important reasons for using OLS to estimate regression models:

“The first reason for using OLS is that it is the simplest of all econometric estimation techniques. Most other techniques involve complicated nonlinear formulas or iterative procedures, many of which are extensions of OLS itself. In contrast, OLS estimates are simple enough that, if you had to, you could compute them without using a computer or a calculator (for a single independent-variable model). The second reason for using OLS is that minimizing the summed, squared residuals is an appropriate theoretical goal for an estimation technique... The final reason for using OLS is that its estimates have at least three desirable characteristics: 1. the estimated regression line... goes through the means of Y and X 2. The sum of the residuals is exactly zero. 3. OLS can be shown to be the “best” estimator possible under a set of fairly restrictive assumptions.” (P. 35-36)

Using an OLS method in the regression, time series obtained from the Ministry of National Economy and World Bank (International Development Indicators), for the period of 1971 to 2002, were utilized to examine the relationship between government expenditure and economic growth in the Omani economy. From Table 4.4, as expected, export value affect growth rate positively and significantly (over 99% of significance). The findings attained suggest that government investment expenditure, participation and support expenditure, and foreign debt service payment expenditure affect GDP growth inversely, though participation and support expenditure is insignificant while government recurrent expenditure positively influences GDP.

The significant coefficient of the government recurrent expenditure variable indicates that a one unit increase in its size stimulates GDP growth by about 0.72 percentage points. On the other hand a one unit increase in the size of government investment expenditure as a share of GDP retards GDP growth by about 0.30 percentage points.

The significant inverse role of government investment expenditures could be attributed to the fact that it usually contains a significant share of appropriations that have been allocated to the physical infrastructure schemes.

Table 4.4: Regression Results

Dependent Variable Y

Variable	C	GR	GI	PS	DT	EX
Coefficient	0.33	0.72	-0.30	-0.01	-0.09	0.70
t-Statistic	0.70	2.85	-3.41	-0.43	-1.88	3.13
Probability	0.49	0.012	0.004	0.674	0.078	0.006
R2	Adjusted R2	F Statistics	Durbin-Watson			
0.68	0.58	6.78	1.87			

Depending on the productivity, effectiveness, and cost-benefit principals, only some of these projects usually have returns and only in the long-run. In addition to infrastructure and social structure programmes, the Sultanate of Oman has launched mining and manufacture projects. However, there are some of these projects have been economically unsuccessful, representing a leakage of scarce resources without good return. (Al-Hejry 1997: 216) It is worth mentioning also, that the cost of such projects, which mostly are luxury, is too high in the Sultanate of Oman (IMF 1994). Moreover, there are so many types of military spending categorized as investment expenditure which are not.

According to Al-Hejry (1997: 221), and The World Bank, (1994: 66), the defense of Oman and its national security expenditures have been recorded among the highest in the world, representing 22% of GDP on average. This represents 40% of total government spending. This proportion was between 50% and 60% until the first half

of the 1970s. Since then it has grown at a rate of 23.3% a year on average up to 1995. However, during the period under study, this rate of growth had slowed to 0.7% a year. It is in fact significant in total government expenditure. The advancement of this type of government expenditure throughout the previous development plans has been gobbling up more than 50% of oil revenues. Probing these figures, it can be noticed that defense and national security expenditure itself consumes the equivalent of 78% of all civilian recurrent expenditure, which means more than three times the expenditure on education and seven times the expenditure on health.

Therefore, it can be said that there is a need to boost the efficiency of this type of expenditure. As Ter-Minassian and Allen have said (2004: 28) “Strengthening the cost-benefit analysis of proposed investment projects, with a view of avoiding the waste of scarce budgetary resources on low-productivity investment, and maximizing the efficiency and cost effectiveness of public investment”. This in fact should be an important concern for government.

Furthermore, this inverse impact of government investment expenditure on GDP growth could be perhaps as a result of an indirect influence through crowding-out effect of the former on private investment. Therefore, it will be interesting to examine the existence of the “crowding-out” phenomenon of public investment on private investment in the Omani economy^{††}.

As expected, the shares of participation and support expenditure affect GDP growth inversely. Some of the components of this type of government expenditure are participation, loans and support to the private sector which in turn include direct loans and contributions to financial investment organizations or loans to national, regional and international organizations and authorities as well as support to the private sector. This new category of government support was introduced first in the Sultanate with the Second Five-Year Development Plan (1981-1985). “In fact

^{††} The issue will be examined in Chapter 5.

pressures are mounting for higher subsidies to counter the effects of heavy subsidization by neighboring states and to minimize their impact on the competitiveness of Omani products in these markets as well as in the Sultanate of Oman itself. However, the World Bank has inferred that, while contributing to some extent to the growth of manufacturing, subsidization in the Sultanate of Oman has not been successful in achieving substantial economic diversification. The hidden fact, however, is that this type of government expenditure has been driven by the pressure of interest groups” (Al-Hejry 1997: 225-227).

Similarly, foreign debt service as a share of GDP. It suggests that one unit increases in this cost as a share of GDP hinders the growth rate by 0.09 percentage unit.

Overall, it can be stated that this empirical evidence is in line with Endogenous growth thought, which confirms that an increase in investment expenditure will either increase or retard economic growth depending on the size of government expenditure, the efficiency and productivity levels of its adopted policies as well as way in which it conducts its allocation procedures.

4.3 Government Expenditure Impact on Non-oil GDP Growth in Oman

4.3.1 Introduction

Following the sharp raise in global oil prices in the 1970s and early 1980s, the fiscal policymakers in the Sultanate recycled the windfall oil gains through an open-handed welfare system, and substantial public investment programmes in infrastructure, utilities, and basic industries. This leads to an initial rapid growth in non-oil activities. In addition, they encouraged the development of these activities through fiscal incentives, such as subsidized provision of electricity and water, soft loans, and low taxation. Therefore, the instability in non-oil economic growth has been associated with swings in government expenditure. Fiscal policymakers in the Sultanate have demonstrated a greater attentiveness to the need to insulate fiscal

policy, and particularly non-oil activity from the volatility in oil prices. This has contributed to weakening the structural reliance of non-oil real GDP growth on government expenditure. Consequently, it is not surprising that non-oil growth has not been significantly affected by the controlled government expenditure policy in the recent years. It is also important to note that, despite the declining trend in government investment expenditure over the past 2 decades^{§§}, non-oil sector has grown rapidly. (Fasano and Wang 2001: 4)

As the life-span of the Omani oil reserves is relatively short, between seventeen and twenty years according to the current rate of extraction, the Government has recognized that since the potential of oil sector has been previously fully utilized, economic strategies in future should focus on maintaining a high ratio of growth in non-oil sector and supporting the currently adopted diversification policy.

This section of the chapter will examine the impact of government expenditures, as well as other determinants, on non-oil GDP in Oman. The scrutiny of the determinants of non-oil GDP will unveil the effect of fiscal policies in the Omani economy on the development of non-oil GDP and show how such policies influence the diversification policy^{***}.

4.3.2 Results of the Regression for Oman

Time series obtained from the Ministry of National Economy and the World Bank (International Development Indicators), for the period of 1971 to 2002, were utilized to examine the relationship between government expenditure and the non-oil GDP growth rate in the Omani economy. This performed through a use of an OLS method and employing the same specifications and tests of the previous regression.

From Table 4.5, the findings attained suggest that government investment expenditure, participation and support expenditure and foreign debt service payment

^{§§} For more details about this issue, see Chapter 3 and 5.

^{***} For more details about this policy, see Chapter 3.

expenditure affect the non-oil GDP growth inversely, though participation and support expenditure is insignificant, while government recurrent expenditure positively influences the non-oil GDP. It must be emphasized that these findings support the results obtained from the previous regression in this chapter.

The significant coefficient of the government recurrent expenditure variable indicates that a one unit increase in its size stimulates the growth rate of non-oil GDP by 0.36 percentage points, while a one unit increase in the size of government investment expenditure as a share of GDP retards the growth rate of non-oil GDP by 0.13 percentage points. As mentioned earlier in this chapter^{†††}, the significant inverse role of government investment expenditures can be attributed to the fact that it usually contains a significant share of appropriations that allocated to the physical infrastructure schemes. Depending on the productivity, effectiveness, and cost-benefit principals^{‡‡‡}, only some of these projects usually have returns and in the long-run only. It is worth mentioning also, that the cost of such projects, which mostly are luxury, is too high in the Sultanate of Oman (IMF 1994). Moreover, as stated earlier, this inverse effect of government investment expenditure on the growth rate of non-oil GDP may be perhaps as a result of an indirect influence through a crowding-out effect of the former on private investment in the Omani economy^{§§§}.

As expected, the shares of participation and support expenditure and foreign debt service payments as a share of GDP affect the growth rate of non-oil GDP inversely. The obtained results suggest that a one unit increase in the foreign debt service as a share of GDP hinders the growth rate of non-oil GDP by 0.074 percentage unit.

In conclusion, as stated previously, it must be emphasized that this empirical evidence in line with Endogenous growth which confirm that an increase in

^{†††} Other justifications were presented in the results of the previous regression.

^{‡‡‡} For more details about this issue see Chapter 2.

^{§§§} The issue will be examined in Chapter 5.

investment expenditure will either increase or retard economic growth depending on the size of the government expenditure, the efficiency and productivity level of the utilized policies and that of the allocation process as well. Moreover, these findings, as well as the findings of the previous regression, come in line with other studies examined the issue in both the Sultanate of Oman's economy and that of the other AGC countries (e.g. Ghali 1997; Mansur and Treichel 1999; Fasano and Wang 2001)

Table 4.5: Regression Results

Dependent Variable Y

Variable	C	GR	GI	PS	DT	EX
Coefficient	0.14	0.36	-0.13	-0.008	-0.07	0.34
t-Statistic	0.47	2.41	-2.41	-0.52	-2.35	2.40
Probability	0.646	0.030	0.030	0.613	0.034	0.030
R2	Adjusted R2	F Statistics		Durbin-Watson		
0.65	0.50	4.3		2.38		

4.4 Causality between Government Expenditure and GDP in the Omani Economy

The objective of this section is to inspect the causal relationship between government expenditure, disaggregated into investment and recurrent spending, and GDP/ non-oil GDP in the Omani economy. The outputs of the causal relationship among fiscal policy variables and GDP/ non-oil GDP will give an indication as to whether there is any temporal precedence among the variables under inspection. Accordingly, if there does exist either a bidirectional or unidirectional causality between GDP/ non-oil GDP and government expenditures in the economy, namely if causation is running

from government expenditures to GDP/ non-oil GDP, this would further substantiate the assumption of a dominant role of fiscal policy in determining GDP/ non-oil GDP. Hence a policy aiming to control the growth of government spending might hinder, as an instance, the growth of GDP/ non-oil GDP and, as a result, weaken the diversification policy as well. If however, the causality is running from GDP/ non-oil GDP to government expenditures, or in the case of the absence of causality, rationalizing the size of government, as a remedy to face the budgetary deficit would be an appropriate fiscal instrument in the case of the Sultanate of Oman.

4.4.1 The Methodology of Testing for Causality

Theoretically, the causal relationship between fiscal policy and long-term growth is relatively new. In the neoclassical growth models, growth is entirely determined by exogenous factors. Only in the theory of Endogenous growth, where the basic argument is that economic policies can directly affect the growth rate of a country, has the role of fiscal policy been reassessed as an important cause contributing to growth. According to this theory, the effect of fiscal policy on the long-run growth rate of a given country can be analyzed by considering independently the influences of tax policy and of expenditure policy and that of overall fiscal policy on the growth rate of that country. (See Solow 1956; Romer 1986; Tanzi and Zee 1996; See Mansur and Treichel 1999).

The concept of causality is based on the idea that a cause cannot come after its effect. More specifically, variable X is said to cause variable Y , if the current value of Y (y_t) is depending on the past values of X ($X_{t-1}, X_{t-2}, \dots, X_{t-0}$) and accordingly the history of X is said to be a convincing factor help predicting Y (Laszlo 2004: 79).

According to Granger (1969), the concept of causality, states that a variable J is caused by K if J is better forecasted from past values of J and K together rather than from values of J alone. Four patterns of causality can be distinguished (Fasano and Wang 2001):

- Unidirectional causality from J to K ;
- Unidirectional causality from K to J ;
- Bidirectional causality and;
- No causality.

In case the two variables are stationary, the pattern of causality between ΔX and ΔY can be identified by estimating a regression on ΔY and ΔX using current and past values of ΔX and ΔY and by testing appropriate hypotheses. As an example, testing causality between two variables can be performed as follows:

$$\Delta Y_t = \delta_0 + a_0 \Delta X_t + \sum_{i=1}^m a_i \Delta X_{t-i} + \sum_{j=1}^m \delta_j \Delta Y_{t-j} + \mu_t \quad (5/4)$$

$$\Delta X_t = \eta_1 + \psi_0 \Delta Y_t + \sum_{i=1}^m \varphi_i \Delta X_{t-i} + \sum_{j=1}^m \eta_j \Delta Y_{t-j} + \nu_t \quad (6/4)$$

where α_i and φ_i are coefficients that explain the impact of m current and past values of ΔX_t and ΔY_t on ΔY_t , where δ_i and η_i describe the impact of m current and past values of ΔX_t and ΔY_t on ΔX_t . The μ_t and ν_t are jointly uncorrelated white noise series. The null hypotheses of the Granger causality is $a_i = 0$ in equation (5/4) and $\eta_i = 0$ in equation (6/4) for all i and j , which can be performed using standard tests, such as the T -test, F -test. If $a_i = 0$ and $\eta_i = 0$ for all i and j , then this suggests that there is no causality, and that the current value of each variables is solely influenced by its own past history. Moreover, if some $a_i = 0$, then ΔY is said to be caused by ΔX , while if some $\eta_i = 0$, ΔX is caused by ΔY . If both $a_i = 0$ and $\eta_i = 0$, then there is bidirectional causality, and both variables are related to current and/or past effects of the other variable (Fasano and Wang 2001).

However, as mentioned previously, to avoid running a spurious regression, if some of the employed time series have unit roots and also to check for both long-run, short-run and equilibrium relationship between the variables, a more comprehensive procedure for causality test for variables that are found to be cointegrated was

introduced by Engle and Granger (1987). This method is known as the “Error-Correction Model” or “ECM”. It includes information from the cointegrated properties of time series and allows for causal linkage between two (or more) variables stemming from a cointegrated (or equilibrating) relationship.

In order to illustrate this technique, assume that there exists a cointegrated relationship among the utilized series. ECM can be formulated to test causality as following,

$$\Delta Y_t = \psi_0 + \lambda_1 ECT_{t-1} + a_0 \Delta X_t + \sum_{i=1}^m a_i \Delta X_{t-i} + \sum_{j=1}^m \beta_j \Delta Y_{t-j} + \mu_t \quad (7/4)$$

$$\Delta X_t = \psi_1 + \lambda_2 ECT_{t-1} + \psi_0 \Delta Y_t + \sum_{i=1}^m \phi_i \Delta X_{t-i} + \sum_{j=1}^m \eta_j \Delta Y_{t-j} + v_t \quad (8/4)$$

where the ECT_{t-1} is the error correction term lagged one period. It is the estimated residuals from the cointegrated regression of the long-run relationship which represents the deviation from the equilibrium in time period t . The other variables are defined as equation (5/4) and (6/4). The ECT_{t-1} , which must be stationary, is the fitted value of e_t from the original regression equation, and hence represents the disequilibrium residuals of a cointegrating equation. As is clear from the above mentioned equation, what is added here, which is the only difference between the specifications of equation (7/4) and (8/4) and equation (5/4) and (6/4), is the term ECT_{t-1} . If the series are found to be cointegrated, the causality test should be based on equation (7/4) and (8/4). That is because causality tests were originally designed for stationary variables. (Fasano and Wang 2001: 15-17)

4.4.2 The Methodology of the Johansen Cointegration Test

It is widely accepted that the Engle and Granger test for cointegration would be enough if the objective is to examine the effect of the error correction mechanism on the dependent variable for two sequences periods such as t and $t-1$. However, if the objective of the test is concentrated on the whole structure of the function, it is more useful to apply Johansen multivariate cointegration analysis (Alkswani 2002: 10-14).

The idea behind this cointegration test is to establish a specification of models that include beliefs about the long run, bivariate or multivariate relationships between different variables. Hence, cointegration between these variables implies that they are linked in the long run even though they are nonstationary. The Johansen's cointegration test (1988) is used to determine the presence of cointegrating vectors in nonstationary time series and detect the number of cointegrating vectors. The method applies the maximum likelihood procedure. The Johansen framework is based on the assumption that introducing sufficient lags will allow for a well-behaved disturbance term. (Balios and Xanthakis 2003: 108)

Moreover, the Maximum Likelihood procedure, suggested by Johansen (1988 and 1990) and Johansen and Juselius (1990), is superior when the number of variables in the study exceeds two variables with sufficient number of observations, due to that there being a possibility of existence of multiple cointegrating vectors. It tests the null hypothesis and says that the number of distinct cointegrating vectors is less than or equal to (q), against a general unrestricted alternative ($q = r$). The number of cointegrating vectors equals or is less than (r) (where $r=0, 1, 2$) (Alkswani 2002: 6). The null hypothesis is that cointegration does not exist, against the alternative which states that the variables under the test are cointegrated.

According to Balios and Xanthakis, (2003: 108) Johansen's approach analyses bivariate and multivariate cointegration, directly investigating cointegration in the VAR (Vector Autoregression) model, that denote the VAR model of order p :

$$\varphi_t = C + \Phi_1 \varphi_{t-1} + \dots + \Phi_p \varphi_{t-p} + \varepsilon_t \quad (9/4)$$

Where φ_t is a k -vector of nonstationary I(1) variables, while c indicates the constant term, Φ_i are matrices of coefficients that need to be estimated and ε_t is a vector of innovations.

For further illustration, the VAR can be rewritten as:

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \mu_t \quad (10/4)$$

$$\text{Where } \Pi = \sum_{i=1}^p \Phi_i - I \text{ and } \Gamma_i = - \sum_{j=i+1}^p \Phi_j \quad (11/4)$$

The information on the coefficient matrix Π can be explained as follows:

$\Pi = \alpha\beta$ where the factors of α matrix symbolize the adjustment parameters and the β matrix holds the cointegrating vectors with each column to be a cointegrating vector. Γ_i are the interval multipliers. If the coefficient matrix Π has reduced rank $r < k$, then there exists $k * r$ matrices α and β each with rank r such that Π is stationary.

4.4.3 Causality between Public Expenditures and GDP in Oman

The literature examined the causality relationship between government expenditure and growth utilized growth ratios of government expenditure (see for example: Ghali, K 1997 and Fasano and Wang 2001). Time series from 1971 to 2002 obtained from The Ministry of National Economy were utilized. Augmented Dickey-Fuller (ADF) was employed to test for stationarity of the entire series. The test results of the variables are presented in Table 4.6. According to the table, all series has been found to be stationary.

Table 4.6: Empirical Results of ADF test for Stationarity

Series	Outputs of ADF t test
Y	-3.929157***
GI	-3.690580***
GR	-4.271589***

*** Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 1 per cent.

As all series were found to be stationary and the null hypothesis of nonstationarity has been rejected, the next step is to check for the direction of causation, utilizing the standard Granger causality test. This is performed by estimating a vector autoregressive (VAR)**** according to the framework presented in equations (5/4) and (6/4) using the following equations:

$$\Delta Y_t = \psi_0 + a_0 \Delta Y_{t-1} + \beta_0 \Delta GR_{t-1} + C_0 \Delta GI_{t-1} + \epsilon_t \quad (12/4)$$

$$\Delta GR_t = \psi_1 + a_1 \Delta Y_{t-1} + \beta_1 \Delta GR_{t-1} + C_1 \Delta GI_{t-1} + \epsilon_t \quad (13/4)$$

$$\Delta GI_t = \psi_2 + a_2 \Delta Y_{t-1} + \beta_2 \Delta GR_{t-1} + C_2 \Delta GI_{t-1} + \epsilon_t \quad (14/4)$$

The Granger causality test model was used to inspect the Granger causal relationships between the variables under examination. The *F* statistics were utilized as a testing criterion. From the outputs presented in Table 4.7, the Granger causality test does not support any causal relationship between the disaggregated government expenditure (recurrent and investment) and GDP. These empirical findings do not support the proposition that changes in government expenditure tend to accelerate or slow GDP growth. Accordingly, the absence of causality suggests that rationalizing the size of government, as a remedy to face the budgetary deficit, would be an appropriate fiscal instrument in the case of the Sultanate of Oman (Fasano and Wang 2001).

Table 4.7: Empirical Results of Granger Causality Tests, based on VAR: F statistics

Null Hypothesis	F Test Output	Conclusion
GR does not Granger Cause Y	0.460	Accept the null
Y does not Granger Cause GI	2.060	Accept the null
GI does not Granger Cause Y	1.386	Accept the null
Y does not Granger Cause GI	3.070	Accept the null

**** A Vector Autoregression model (VAR) is employed. The VAR technique lately has become popular and appropriate, because of its ability to characterize the dynamic structure of the model as well as its ability to avoid imposing excessive identifying restrictions associated with different economic theories. Moreover, the use of VAR in macroeconomics has generated much empirical evidence, giving fundamental support to many economic theories. Furthermore, this method does not necessitate any unambiguous economic theory to estimate the model. (see Eltony 2004; Blanchard and Watson 1984 ; Bernanke 1986)

4.4.4 Causality between Government Size and Non-Oil GDP in Oman

As mentioned earlier, the previous studies examined the causality relationship between government expenditure and growth utilized the growth ratios of variables (see for example: Ghali, K 1997 and Fasano and Wang 2001). Time series from 1971 to 2002 obtained from The Ministry of National Economy were utilized. The Augmented Dickey-Fuller (ADF) was utilized to test for stationarity of the entire series. The test outputs are summarized in Table 4.8

Table 4.8: Empirical Results of ADF test for Stationarity

Series	Outputs of ADF t test
Y	-4.830677***
GI	-3.690580***
GR	-4.271589***

*** Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 1 per cent.

As all series were found to be stationary and the null hypothesis of nonstationarity has been rejected, the next step is to check for the direction of causation, utilizing the standard Granger causality. This is performed by estimating a vector autoregressive (VAR) according to the framework presented in equation (5/4) and (6/4) using the following equations:

$$\Delta Y_t = \psi_0 + a_0 \Delta Y_{t-1} + \beta_0 \Delta GR_{t-1} + C_0 \Delta GI_{t-1} + \varepsilon_t \quad (15/4)$$

$$\Delta GR_t = \psi_1 + a_1 \Delta Y_{t-1} + \beta_1 \Delta GR_{t-1} + C_1 \Delta GI_{t-1} + \varepsilon_t \quad (16/4)$$

$$\Delta GI_t = \psi_2 + a_2 \Delta Y_{t-1} + \beta_2 \Delta GR_{t-1} + C_2 \Delta GI_{t-1} + \varepsilon_t \quad (17/4)$$

The Granger causality test model was used in order to examine existence of the Granger causal relationships between the variables under assessment. The F statistics were utilized as a testing criterion. From the outputs presented in Table 4.9, while the Granger causality test does not support any causal relationship between government

recurrent expenditure and non-oil GDP, there is unidirectional Granger causality between government investment expenditure and non-oil GDP. This causality running from non-oil GDP to government investment expenditure, that is to say non-oil GDP, Granger causes government investment expenditure and not vice versa. Based on this, the absence of causality between government recurrent expenditure and non-oil GDP, and the unidirectional Granger causality between government investment expenditure which is running from non-oil GDP to government investment expenditure, do not support the proposition that changes in government expenditure tend to accelerate or slow GDP growth. Hence, rationalizing the size of government, as a solution to face the budgetary deficit, would be an appropriate fiscal instrument in the case of the Sultanate of Oman (Fasano and Wang 2001).

Table 4.9: Empirical Results of Granger Causality Tests, based on VAR: F statistics

Null Hypothesis	F Test Output	Conclusion
GR does not Granger Cause Y	0.889	Accept the null
Y does not Granger Cause GI	1.892	Accept the null
GI does not Granger Cause Y	1.610	Accept the null
Y does not Granger Cause GI	5.272	Reject the null

4.5 Causality between Government Expenditure and GNP in Oman

In this part of the chapter, the causation relationship between disaggregated public expenditure and GNP will be examined. The Johansen cointegration test and the Granger causality test will be employed to determine any long-run relationship as well as the directions and patterns of causality between the disaggregated public expenditure and GNP. If the empirical evidence provides any stand on the existence of any causal relationship running from government expenditure to GNP or GNP per capita, which supports the Keynesian hypothesis, then a cut in government expenditure may retard GNP or GNP per capita. However, if it supports the Wagnerian law, which states that income causes government expenditure or in the

absence of any type of causality, then the appropriate fiscal policy to control the growth of budgetary deficit and foreign public debt would be to recommend a cut in government expenditure.

According to Demirbas (1999: 3) “Recent advances in time series analysis have permitted the investigation of the long-run relationship between public expenditure and GNP in terms of cointegration analysis”. There are two major opposing theories in economics concerning the relationship between government expenditure and economic growth: Keynesian macroeconomic theory and Wagnerian law. While the former in general assumes that increased government expenditure tends to lead to high aggregate demand and in turn, rapid economic growth. Wagnerian theory leans toward the opposite view and argues that a rise in national income causes greater government expenditure (Cheng and Lai 1997: 11).

Singh and Sahni (1984: 630), state that the relationship between public expenditure and national income has been treated in two major areas of economic analysis. Public finance studies have in general suggested that growth in public expenditure over time is caused by growth in national income. By contrast, most macroeconometric models have tended to take the opposite sight. Following Wagner (1890), the former have considered public expenditure is similar to private consumption as a behavioral variable expenditure. However, the latter essentially following Keynes (1949), have treated public expenditure as an exogenous policy instrument considered as suited to correct short-term cyclical fluctuations in aggregate expenditures. Even though each one of those schools has thrown interesting light on the phenomenon, neither of them assumed a causative process in which the phenomenon has been subjected to as much as necessary empirical pretesting.

Choosing between the two opposing views is not easy, as the possibility of feedback in macro relations tend to obscure both the direction and the nature of causality. Hence, both types of studies are viewed with a great deal of uncertainty. It is obvious that knowledge of the true nature of the causative process will help determine the

robustness of the estimated relationships in these studies. If causality be Wagnerian, the estimates derived from macroeconometric models will evidently suffer from simultaneity bias (Haavelmo 1953). Similarly, if the causality be Keynesian, the estimates reported in public finance studies will be biased. Moreover, knowledge of the exact causative process has important policy implications. As an example, if the causality were Keynesian, it acquires the status of an important policy variable. If Wagnerian, public expenditure is relegated to a passive role (Singh and Sahni 1984: 630).

The objective of this section of the chapter is to test the direction of causality between public expenditure and national income. Based on the results, it will be easy to compare discretionary and expansionary fiscal policy and hence know the feasibility of the planned deficit policy adopted in the Sultanate of Oman. For this purpose, the Granger causality framework is utilized. The research method suggested separates the issue of inference from the problems of prediction or of quantitative policy analysis of an empirical parametric model and tests for pairwise causality (Holmes and Hutton 1990).

This section of the chapter will investigate whether the case of the Sultanate of Oman supports Wagner's law or the Keynesian framework. The reason behind this investigation is to develop better theory of public expenditure policy in Oman and the type of the long-run causation relationship between government expenditure and GNP.

4.5.1 Modelling the Causality between Government Expenditure and GNP

Folster and Henrekson (1999) mention that there is no agreement yet regarding the direction of causality between public expenditure and economic growth. Wagner's law states that the causality run from growth to government expenditure, while the Keynesian view suggests that it runs from government expenditure to growth. For more details, see Kweka and Morrissey (2003), Abubader and Abugarn and Ter-

Minassian and Allen (2004). Regarding the difference between the two theories, the Keynesian relationship between government expenditure and economic growth is well-documented earlier in this study and hence it will only be briefly discussed here. Wagner (1883) offered a model which specifies the causal relationship between public expenditure and economic growth. Soon after his opinions were formulated as a law and are often referred to now as "Wagner's law". Wagner's main contribution in this field was establishing generalisations about public expenditures, by direct inference from historical evidence (Demirbas 1999: 3).

Within the Wagnerian framework, public expenditure is treated as a behavioural variable, similar to private consumption. In contrast, in Keynesian public expenditure is an important policy tool able to influence the level of equilibrium output. Based on this, if the causality pattern were Wagnerian (the causation running from output to government expenditure), public expenditure would be delegated to a passive role. If it is Keynesian (the causation running from government expenditure to output), it would acquire the status of an important policy variable (Arghyrou 1999: 3).

Applying the framework of the Granger causality test to examine the issue, four findings are likely:

- (i) As independence is suggested when the sets of Y and X coefficients are not statistically significant in both regressions, so neither variable "Granger-causes" the other;
- (ii) Y causes X, but not vice-versa, which is a unidirectional causality from Y to X and hence, Wagner's law applies;
- (iii) X causes Y, but not vice-versa, means unidirectional causality from X to Y which allows validity of Keynesian model;
- (iv) A bilateral causality, that is when X and Y Granger-cause each other. If the last is found to be true, there a feedback effect exists and so, neither

the Keynesian nor Wagnerian approach is valid (Demirbas (1999) , Miller and Russek (1990) and Gujarati (1995).

Demirbas (1999) stated that evidence of cointegration would be sufficient to establish a long-run relationship between public expenditure and income in the case of Wagner's law. However, supporting Wagner's law requires unidirectional causality from income to public expenditure. Accordingly, cointegration should be seen as an essential condition for Wagner's law, but not sufficient. Hence, conditional on cointegration results, makes it necessary to look at the causality properties of the model.

Moreover, "If the null hypothesis of noncointegration between X_t (public expenditure) and Y_t (GNP or GNP/P) cannot be rejected, then the standard Granger causality test can be employed to examine the causal relationship between the series (using the variables in first differences)" (Demirbas 1999: 14-15) For further illustration, see also Hassapis, et al (1999) and Feridun (2004).

4.5.2 Methodology and Description of the Data

Assessing the direction of the causal nexus is an empirical issue to inspect whether one variable precedes the other, or if they are contemporaneous. In the current case the question is whether examining this nexus amount to testing how much of the current value of the one variable can be explained by past values of the second variable. So it is said to be Granger-caused by, if the coefficients of lagged are statistically significant in the regression of lagged values of all the variables in the information set. A test of Granger-causality can be empirically carried out by means of the vector autoregression (VAR) model (Konstantinou 2004: 95).

In this section, vector autoregression (VAR) techniques, applying F -test methodology are utilized to examine interrelationships observed in two different regressions: First, among government expenditure, disaggregated into investment

(GI) and recurrent expenditures (GR), and gross national income (GNP). Second, among the above mentioned government variables and GNP per capita. It worth noting that one advantage of the VAR technique is that it allows examination of interrelationships among the variables. (Enders and Lee 1990: 375). Annual time series obtained from the Ministry of National Economy in the Sultanate of Oman for the period from 1971- 2002 are used.

The final variables in the first regression are: gross national income (GNP) as a dependent variable while government investment expenditure (GI) and government recurrent expenditure (GR), both as a share of GNP, are explanatory variables. In the second regression, the dependent variable is GNP per capita, while independent variables remain the same as those of the first regression. All the variables under examination are presented in their logarithmic form.

4.5.3 Empirical Results on Wagner's Law for Oman

In order to establish the order of integration of the variables in the data set, the ADF test was employed to test for unit root. The test is based on regression equations (19/4) and (20/4) presented below. The general form of the ADF test can be written as follows (Demirbas 1999):

1. For level the following equation:

$$\Delta Z_t = aZ_{t-1} + \sum_{i=1}^k \beta_i \Delta Z_{t-i} + \delta + \gamma + \mu_t \quad (19/4)$$

2. For first difference:

$$\Delta \Delta Z_t = a\Delta Z_{t-1} + \sum_{i=1}^k \beta_i \Delta \Delta Z_{t-i} + \delta + \gamma + \mu_t \quad (20/4)$$

Where ΔZ denotes the first differences of the series, k is the number of lags and t is time.

Table 4.10 presents the estimated t -values from ADF tests on each series in levels and in first differences. In their levels, the null hypothesis of nonstationarity cannot be rejected for all series under examination, except for GNPPC.

Table 4.10: Empirical Result of Testing for Stationarity

Series	Level	First Difference
GNP	-2.127317	-3.646706**
GNPPC	-4.829289***	-3.556166**
GI	-1.614632	-5.522962***
GR	-1.729799	-4.442113***

, (*) Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 5, (1) per cent.

To determine the order of integration to first differences, the same test was applied. As the critical values are less, in absolute terms, than the calculated values of the test statistics for all series, one can conclude that all of the series, except GNPPC are integrated of order one or $I(1)$, and stationary after differencing once. “Since all of the series in the first group are integrated of the same order, the series may be tested for the existence of a long-run relationship between them, i.e. a cointegrating relationship”. In other words, if there is evidence that disaggregated measures of public expenditure and GNP/ GNP per capita are nonstationary, and not cointegrated, it is still possible to apply the Granger causality test, using stationary series, (i.e. first differences in this case) and hence examine the short-run linkages between them (Demirbas 1999: 6-7).

4.5.4 Cointegration Test

According to Demirbas (1999) and Gordon et al.(1997), while modelling short-run dynamics using an error correction procedure cannot be conducted without evidence of cointegration, it is possible to continue to model the short-term dynamics by applying the standard Granger causality procedures to measure for possible causal relationships between the utilized variables, using these variables in their first difference.

The results of the Johansen cointegration test^{††††} presented in Tables 4.11 and 4.12 show that there is a long-run relationship between disaggregated public expenditures and GNP. It exists also between disaggregated public expenditures and GNP per capita. Based on this, the Granger causality test for both groups will be performed in the context of an ECM, as stated earlier in this chapter, and according to the following equations:

- First group of regressions:

$$\Delta GNP_t = \psi_0 + \phi ECM_{t-1} + a_0 \Delta GNP_{t-1} + \beta_0 \Delta GR_{t-1} + C_0 \Delta GI_{t-1} + \varepsilon_t \quad (21/4)$$

$$\Delta GR_t = \psi_1 + \phi ECM_{t-1} + a_1 \Delta GNP_{t-1} + \beta_1 \Delta GR_{t-1} + C_1 \Delta GI_{t-1} + \varepsilon_t \quad (22/4)$$

$$\Delta GI_t = \psi_2 + \phi ECM_{t-1} + a_2 \Delta GNP_{t-1} + \beta_2 \Delta GR_{t-1} + C_2 \Delta GI_{t-1} + \varepsilon_t \quad (23/4)$$

- Second group of regressions:

$$\Delta GNPPC_t = \psi_0 + \phi ECM_{t-1} + a_0 \Delta GNPPC_{t-1} + \beta_0 \Delta GR_{t-1} + C_0 \Delta GI_{t-1} + \varepsilon_t \quad (24/4)$$

$$\Delta GR_t = \psi_1 + \phi ECM_{t-1} + a_1 \Delta GNPPC_{t-1} + \beta_1 \Delta GR_{t-1} + C_1 \Delta GI_{t-1} + \varepsilon_t \quad (25/4)$$

$$\Delta GI_t = \psi_2 + \phi ECM_{t-1} + a_2 \Delta GNPPC_{t-1} + \beta_2 \Delta GR_{t-1} + C_2 \Delta GI_{t-1} + \varepsilon_t \quad (26/4)$$

Table 4.11: Johansen Cointegration Test Results (GNP Group)

Hypothesis	1% Critical Value	5 % Critical Value	Likelihood Ratio
r=0	35.65	29.68	57.9**
r<1	20.04	15.41	20.9**
r<2	6.65	3.76	5.2*

r= the number of cointegrating vectors under the null hypothesis.

*(**) indicates the rejection of the null hypothesis at 5%, (1%) significance level

^{††††} The framework of this methodology explained in brief earlier in this chapter.

Table 4.12: Johansen Cointegration Test Results (GNP Per Capita Group)

Hypothesis	1% Critical Value	5 % Critical Value	Likelihood Ratio
$r=0$	35.65	29.68	50.8**
$r<1$	20.04	15.41	8.8
$r<2$	6.65	3.76	3.6

r = the number of cointegrating vectors under the null hypothesis.

** indicates the rejection of the null hypothesis at 5%, (1%) significance level

4.5.5 Discussing the Results

Singh and Sahni (1984: 630) point out that, in their persuasion to model the relationship between government size and national income researchers and observers will find the issue has been treated in two inconsistent analytical ways in the theory, that considered government expenditure as a behavioural variable and those treated public expenditure as an exogenous policy tool. While public finance studies have in general postulated that growth in public expenditure is caused by growth in national income (Wagnerian approach), most macroeconometric models have tended to take the view that income growth is determined, in part, by growth in public expenditure (Keynesian approach). Looking at these different views of the causal relationship between the two variables, in turn, rest on more basic differences in assumptions. While public finance studies, following Wagner, have considered public expenditure as a behavioural variable, similar to private consumption expenditure, macroeconometric models, fundamentally following Keynes, have treated public expenditure as an exogenous policy instrument constructed to correct short-term cyclical fluctuations in aggregate expenditures. The null hypothesis of noncausality is tested using t -statistics. The results of t -tests are presented in Tables 4.13 and 4.14. The regression outputs in the tables indicate that there is no strong evidence to support either Wagner's law or Keynesian hypothesis. (Demirbas 1999: 18)

Carrying out Granger causality tests on the dynamic relationship between the variables under examination, there is no strong evidence to be seen in Tables 4.13,

and 4.14 to support either Wagner's law or Keynes' hypothesis. The tables show the absence of bidirectional causality between the disaggregated public expenditures and GNP per capita. There is a unidirectional causation running from government recurrent expenditure to GNP per capita as expected which suggests the significant role of this type of government expenditure in determining the GNP per capita in the Sultanate of Oman. This can be attributed to the large budget allocated to the public employees. Moreover, as is obvious known, this type of spending is consumptive in nature. Hence, by its huge purchase of public needs of goods and services, the government contributes significantly to the private sector's income. However, it is expected that in the light of the currently privatization policy, this role is weakening and thus the effect of such spending on GNP per capita, as a result, will be inconsequential.^{***}

It also must be emphasized, that the results suggest that in the short-run, which is captured by the lagged variables, while there is evidence of a negative influence of government capital expenditure on GNP per capita, though insignificant, this effect is positive but insignificant on GNP. The impact of government recurrent expenditure is significantly positive on both GNP and GNP per capita. This supports the results obtained earlier in this chapter.

Based on the empirical results, except for the unidirectional causality between government recurrent expenditure and GNP per capita, neither the growth of government expenditure, in the case of the Sultanate of Oman, is directly dependent on and determined by the growth of GNP/GNP per capita as Wagner's law states, nor is the growth of GNP/GNP per capita directly dependent on and determined by government expenditure as Keynesian states (Demirbas 1999: 18).

To sum up, these findings do not suggest strong evidence to conclude in favour of any of the two hypotheses above mentioned. More specifically, these empirical results do not support the proposition that changes in government expenditure tend to

^{***} For more details about the size of the government role in the Omani economy as well as privatization policy, see Chapter 3.

accelerate or slow GNP growth. Consequently, the nonappearance of causality proposes that rationalizing the size of government so as to cure a budgetary deficit, would be an appropriate fiscal policy for Oman to use. (see for example, Fasano and Wang 2001).

Table 4.13: Causality Test in Context of an ECM (GNP Group)

	ΔGNP_t	ΔGR_t	ΔGI_t
C	0.065697 (1.50226)	-3.78E-06 (-0.00012)	-0.034414 (-0.56330)
ECM_{t-1}	-0.255697 (-1.32878)	-0.093767 (-0.68344)	-0.493500 (-1.83579)
ΔGNP_{t-1}	0.837218* (2.53401)	-0.611779* (-2.59707)	0.047925 (0.10383)
ΔGNP_{t-2}	0.034630 (0.07485)	0.273609 (0.82948)	0.014134 (0.02187)
ΔGR_{t-1}	1.378880* (2.36153)	-0.785692 (-1.88729)	-0.218112 (-0.26740)
ΔGR_{t-2}	0.460941 (0.72600)	0.307321 (0.67890)	-0.007049 (-0.00795)
ΔGI_{t-1}	0.189201 (0.87527)	0.044337 (0.28767)	0.140409 (0.46496)
ΔGI_{t-2}	0.172921 (0.79764)	-0.082997 (-0.53696)	-0.054851 (-0.18111)

t-statistics in parenthesis.

* Indicates statistical significance at 5% level.

Table 4.14: Causality Test in Context of an ECM (GNP Per Capita Group)

	$\Delta GNPPC_t$	ΔGR_t	ΔGI_t
C	0.034918 (1.59654)	-0.055904 (-1.16903)	-0.004535 (-0.19420)
ECM_{t-1}	-0.653916** (-2.92735)	0.539855 (1.10530)	-0.185371 (-0.77721)
$\Delta GNPPC_{t-1}$	0.409317* (2.55699)	0.011225 (0.03207)	-0.332147 (-1.94331)
ΔGNP_{t-2}	-0.008617 (-0.04355)	-0.494101 (-1.14224)	-0.359533 (-1.70205)
ΔGR_{t-1}	0.459711 (1.45284)	-1.620315* (-2.34198)	-0.725169* (-2.14641)
ΔGR_{t-2}	0.502024* (2.15473)	-0.213707 (-0.41950)	-0.049178 (-0.19769)
ΔGI_{t-1}	0.086529 (0.57312)	0.479069 (1.45123)	0.157419 (0.97653)
ΔGI_{t-2}	-0.139026 (-1.12712)	-0.214568 (-0.79559)	-0.118024 (-0.89616)

t-statistics in parenthesis.

*, (**) Indicate statistical significance at 5%, (1%) level.

4.5.6 Policy Implications

Recently, smoothing government expenditures in GCC countries including the Sultanate of Oman possessed strong arguments. Barnett and Ossowski (2002: 15) stated that these arguments depend on actual experiences from these economies. They suggest as examples:

-
- Short-term fluctuations in government expenditure can entail potentially substantial fiscal costs such as including a reduction in the quality and efficiency of spending;
 - The sudden creation or enlargement of expenditure programmes that are coupled with oil windfalls carry risks. A rapid undertaking of target-scale public spending programmes may exceed the government's planning target implementation, and management capacity, with the result that it may be difficult to prevent wasteful spending. As an instance, the criteria for the selection of investment projects may become lax, leading to suboptimal decisions;
 - Moreover, the level of spending should be determined taking into account, its likely quality and the capacity of the administration to execute it efficiently (Engel and Valdes 2000);
 - Furthermore, as spending programmes become entrenched and take a life of their own, government expenditure proves difficult to contain or streamline following expansions. Likewise, booms tend to lock in powerful hysteresis effects that prolong high spending levels. This can set the stage for serious macroeconomic imbalances (Auty and Gelb 2001);
 - On the other hand, drastic expenditure reductions in the face of negative external shocks, can involve cuts in social spending and the government payroll, as well as investment spending, which may lead to social instability and finally discourage investment and reduce future growth (Barnett and Ossowski 2002).

According to Rosen (1995: 143), in contrast to the theories that see government growth as inevitable are those that consider it as the consequence of chance events. It is noteworthy to mention that in "normal" periods there is only moderate growth in public expenditure. Occasionally, however, some shocks to the economic and social

system require higher levels of government expenditure and hence novel methods of financing. Moreover, even after the shock disappears, those higher levels of public expenditure continue to prevail because of “inertia”. Some writers such as Peacock and Wiseman (1967) call this the “displacement effect”.

Based on the aforementioned discussion, and due to that volatile expenditure pattern which may entail macroeconomic and fiscal costs, and therefore provide arguments for smoothing the path of spending in the face of oil price fluctuations, cautious policies need to be adopted when public expenditure has increased rapidly. In such cases, the marginal value of additional expenditure is likely to be in question, particularly, if due to institutional constraints, the quality of expenditure is suspect. In any event, the point will be reached when the Sultanate of Oman’s economy as an oil-producing country, in addition to temporary nature of its oil fortune, would benefit more from boosting the efficiency of government expenditures, giving more consideration to the issue of cost-benefit based spending, as well as lowering its gross public debt levels (Barnett and Ossowski 2002: 15).

4.6 Conclusion

The Sultanate of Oman’s economy has experienced persistent economic growth, financial stability and confidence. The Sultanate’s economic achievement and the growing private sector participation in the economy have been mirrored in the prosperity and well-being of the Omani population in general. Nonetheless, this inspiring economic performance has been supported in part by an expansionary fiscal policy. The deterioration of public sector saving, coupled with the Omani private sector’s low propensity to save, have harmfully affected the saving-investment balance and increased the dependence of the economy on foreign saving and investment. As has to be acknowledged, economic regulations may diminish economic efficiency and waste many of the benefits of government activity. Moreover, the attempt to control the fiscal deficit raises the question: “Does a raise in

government size hinder or accelerate economic growth?” The aim of this chapter was to examine:

- (i) The impact of government expenditures on GDP/ non-oil GDP in the case of the Sultanate of Oman;
- (ii) The causal relationship between government expenditure, disaggregated into investment and recurrent spending, and output.

The perception of the determinants of output will reveal the role of fiscal policies in the Omani economy and how such policies affect the diversification policy.

Firstly, in a model to examine the impact of government expenditures on GDP/ non-oil GDP, government expenditures were categorized into investment, recurrent, foreign debt service payments and participation and support expenditure. The attained results suggest that increased government investment expenditure is associated with lower growth, and that government recurrent expenditure has significant positive influence. Moreover, there is an evidence of a negative link between foreign debt service expenditure payments and growth, as well as government spending allocated for participation and support. Evidence of the latter, however, is insignificant. Overall, a conclusion can be drawn that most types of government expenditures appears to be growth-retardant. This could be attributed to inefficient fiscal policies and procedures.

Secondly, in order to check for causation relationship between government size and GDP/non-oil GDP, the Granger causality test was utilized. On the one hand, the Granger causality test did not support any causal relationship between the disaggregated government expenditure (recurrent and investment) and GDP, and consequently, these empirical findings do not support the proposition that changes in government expenditure tend to accelerate or slow GDP growth. As for causation relationship between government size and GDP/ non-oil GDP, non-oil GDP found to be Granger causing government investment expenditure and not vice versa. The conclusion drawn is that the absence of causality between government recurrent

expenditure and non-oil GDP as well as the unidirectional Granger causality between government investment expenditure, which is running from non-oil GDP to government investment expenditure again does not support the proposition that changes in government expenditure tend to accelerate or slow non-oil GDP growth. Consequently, rationalizing the size of government, as a solution to face the budgetary imbalances and hence curb the growth of foreign debt would be an appropriate fiscal instrument in the case of the Sultanate of Oman.

Thirdly, chapter also deployed the Granger method to determine the directions and patterns of causality between disaggregated public expenditure and GNP in one group and disaggregated public expenditure and GNP per capita in a second group. A test to check properties of the time series used was performed to test for the existence of unit roots. The outputs of the ADF test indicate that while the variable GNP per capita was stationary, the series of public expenditure variables and GNP were integrated of order one. As they were nonstationary in levels, but stationary in their first differences. Based on that, the Johansen cointegration test was conducted. It was found that cointegration exists among the variables in the two groups. The Granger causality test, then, was conducted to check for the existence of causality among the variables in a context of ECM. There was no evidence of a causality relation running from government expenditure, disaggregated into capital and recurrent, to GNP or vice versa. Similarly, in the GNP per capita group no strong evidence for a causality relationship has been captured among government capital expenditure and GNP per capita. The weak unidirectional causality that exists between government recurrent expenditure and GNP per capita, suggests a significant role of this type of government expenditure in determining the GNP per capita in the Sultanate of Oman. This can be attributed to the large payroll budget allocated to the public employees. Moreover, as it is known, this type of spending is consumptive in nature. By its huge purchase of public needs, the government contributes also significantly to the private sector's income. However, it is expected that in the light of the currently privatization policy, this role is weakening and hence the effect of such spending on GNP per capita, as a result, will be insignificant in the near future.

Furthermore, based on the regression results of the impact of government expenditure on economic growth, namely the inverse effect of government investment expenditure, captured in the two regressions earlier in this chapter, together with the current findings, it would be possible to state that in reality, government expenditures seem not of high quality. Even capital expenditures can yield inadequate returns. As an example, in the absence of appropriate screening and monitoring mechanisms, government may be able to indulge in heavy borrowing to invest in low rates of financial and even social return. This can undermine the prospects for debt sustainability^{§§§§} (Enders and Lee 1990).

In a word, while the empirical results obtained do not support Wagnerian law (income causes government expenditure), it is not also possible to conclude in the favour of the Keynesian hypothesis (government expenditure causes income). This supports the view that shrinking government expenditure, as a policy in the framework of controlling fiscal deficit in Oman, could be adopted.

These empirical findings are in line with Endogenous growth thought, which confirms that an increase in investment expenditure will either increase or retard economic growth depending on the size of the government, and the efficiency and productivity level of the utilized policies and that of the allocation process as well. Furthermore, it is also comes in line with a number of studies which have examined the issue in the Sultanate of Oman's economy and that of the other AGC countries (e.g. Ghali 1997; Mansur and Treichel 1999; e.g. Fasano and Wang 2001)

As mentioned in Chapter 3 in this study, in order to achieve several developmental targets, one of the government's planned economic goals is strengthening the Omani private sector. Moreover, the inverse impact of government investment expenditure on GDP growth could be perhaps as a result of an indirect influence through the crowding-out effect of the former on private investment. Examining the existence of

^{§§§§} See Chapter 6 for more details about this issue.

the crowding-out phenomenon in the Omani economy has become essential. The next chapter will explore the issue.

CHAPTER 5: ANALYSING THE EFFECT OF PUBLIC INVESTMENT ON PRIVATE INVESTMENT: EMPIRICAL RESULTS ON CROWDING OUT IN OMAN

5.1 Introduction

This chapter aims at presenting the importance of the private sector in the national economy. It will show that the reduction of the role of government in the economy is a key element in increasing the role of the market mechanism in the Omani economy and that decreasing the role of the government will reduce barriers to private initiative and will motivate private investment activities, both qualitatively and quantitatively. It will also prove that increased private investment ultimately leads to higher economic growth. Moreover, based on the results cited in Chapter 4, there is a possibility of the existence of a crowding-out of public investment on private investment. Accordingly, the chapter will show the development of both public and private investment. In order to examine the existence of the issue the chapter will utilize a model suggested to be suitable in the case of the Sultanate of Oman.

Given the Sultanate of Oman's relatively short horizon of proven and commercially viable oil reserves and that the Government has recognized that because the oil sector's potential is already being fully utilized, economic strategies should focus on: sustaining a high ratio of growth in the non-oil sector, achieving lift in income per capita and jobs creation, undertaking and sustaining serious fiscal consolidation. Moreover, as stated earlier, the need to diversify the economy and build up SGRF* reserves for future use is

* State General Reserve Fund was founded according to the Royal Decree No. 1/1980.

much more pressing in the case of the Sultanate of Oman than in other member countries of the AGCC. The economic growth priorities now are achieving a balanced government budget; increasing the share of private sector investment in total investment; mobilizing substantially higher foreign investment; and creating a better employment opportunities for the growing number of Omani nationals entering the labour force (Mansur and Treichel 1999: 1).

Furthermore, it is well known that the current structural adjustment programmes and economic policies emphasise the need to shrink government expenditure to control budget deficits as well as to stimulate private initiative in the Omani economy. These fiscal policies adjustments demand a more limited role for government[†] in the economy. The reduction of the role of government in the economy is a key element in increasing the role of the market mechanism. According to the programmes recommended by World Bank and IMF, decreasing the role of government will reduce barriers to private initiative and will motivate private investment activities. Increased private investment ultimately leads to higher economic growth. Moreover, the IMF (1994: 44) expects the existence of a crowding-out effect of public investment on private investment. It has stated that "Private investment would dwindle due to a combination of lower productivity of capital and the public sector's "crowding-out" effects."

From the primitive market arrangements that prevailed initially to the relatively well functioning mixed economy of today and the Sultanate of Oman's drive for transformation that began in the early 1970s, the public sector has led the transition. This transition has been brought about by an expansionary fiscal policy and a sizeable public investment program. Together they provided the basic economic infrastructure upon which future development can be built. The Government took a leading role in the utilities, manufacturing, transportation, communications, and tourism through

[†] For more details about the role of the Omani Government in the economy, see Chapter 3.

establishing public authorities and wholly or partially owned companies.[‡] (IMF 1994: 75)

The private sector in Oman comprises a range of privately owned commercial enterprises including:

- (i) Large multinational corporations whose local enterprises may be a small part of their world-wide operations;
- (ii) Joint ventures between foreign-owned companies and local enterprises;
- (iii) Large locally owned businesses, such as those resulting from the privatization of state-owned companies;
- (iv) Small and medium sized enterprises, employing some non-family members; and
- (v) Micro-enterprises, normally consisting of one to three people engaging in activities such as small-scale manufacturing, handicraft production, farming, or even street trading (AusAID 2000: 8).

5.2 Economic Importance of Private Sector and Private Investment

Kanamori and Zhao (2004) state that some experts see private enterprises as equivalent to either the private sector or the private economy. Some of them classify enterprises into state-owned and private activities, using ownership as the criterion. Others broaden the concept and insist that companies not controlled by the government should be included within the private sector (e.g. foreign-invested and non-public shareholding enterprises).

[‡] For more details, see Chapter 3.

According to AusAID (2000: 9), the private sector is referred to as the main 'engine' for economic growth. Good examples for such an importance: (i) growth in the private sector which generates employment opportunities; (ii) high personal income; (iii) tax revenues for government enabling them to fund crucial basic services; and (v) the goods and services which people need to improve their quality of life. Based on that, development of the private sector can be seen as an essential need. In this cadre, government has a crucial role to play in enabling policy and encouraging an institutional environment for the development of the sector. This includes an important regulatory role, mainly where market outcomes may have unfavorable effects on economic and social welfare. The core elements of such a role: (i) enabling environment and effective governance; (ii) developing basic social services and infrastructure; (iii) offering an effective management of a country's social and economic resources in a manner that is open, transparent, accountable and equitable.

Policymakers will have to engage in a continuous endeavour to balance competing demands. They will need to make trade-offs between a variety of societal goals such as free choice of provider or equity of access and cost-containment. This is not a straightforward proposition. It should be recognized that these are considerable complexities for decision-makers is in taking and monitoring this kind of explicit choice. Nonetheless, the debate on the role of the private sector and its balance with the public sector will only move forward when ideologies and values can be adjusted towards priorities and the trade-offs between purposes rather than on the mechanisms to achieve them (WHO 2002: 1).

In practice, the private sector needs efficient and competitive markets supported by responsible macroeconomic management and market-friendly policy measures. Fiscal policy (taxation and public expenditure) and monetary policy are key factors of business investment. It is worth mentioning that government can also offer support by

formulating competition policies, establishing clear guidelines for foreign and domestic investors and ensuring an appropriately regulated banking and financial sector. (AusAID 2000: 10-11)

However, it should be noticed that to enable a smooth achievement of the above mentioned policies, there is a crucial need for a decision-making structure that allows the evidence to be assessed and does not neglect the key role of ideology and policy judgement. In other words, the forethought on the role of the private and public sectors can be achieved when the political deliberations around societal values and dogma are separated and an assessment of the evidence on the actual impact of private sector models on those societal values is undertaken (WHO 2002: 9).

Moreover, as the business community relies on transparent and consistent implementation of government policy in areas such as investment, taxation and customs, the private sector also needs a legal, judicial and regulatory environment which is characterized by respect for the rule of law. The efficiency of government policies is another key issue which can be improved by reducing government involvement in commercial enterprises (AusAID 2000: 10-11). The IMF (1994), stated that:

“The assumption of a more appropriate role by Oman's public sector would entail withdrawing from ineffective, unnecessary or undesirable activities and focusing on performing the more traditional functions of government better. Actions to narrow the Government's focus and strengthen its ability to discharge traditional public responsibilities could include:

- Refocusing development planning, away from physical and financial planning and monitoring and toward priority setting, reformulating development policies, and monitoring the impact of the implementation of those policies on the economy. In setting national priorities, now that the basic economic and social infrastructure is in place, more reliance on economic criteria in the selection of public investment programs would lead to more efficient use of Oman's resources.
- Substantially reducing or eliminating government involvement in commercial activities;

-
- Reducing the Government's role in directing private sector development and review current policies and instruments for promoting industrial diversification with an aim of using more efficient means...."(P.63).

In this chapter, the main purpose is to throw light on the impact and behaviour (e.g. substitutability, complementarity) of government investment expenditures on or towards private investment: namely, focusing on the impact of public investment on private investment and implicitly investigating whether public investment is crowding-out or crowding-in private investment. The reason behind highlighting private investment is that other studies, mentioned earlier in the literature review, have shown that a disproportionate share of the change of economic growth of countries is explained by a change of private investment as a result of changes in expenditure policy.

5.3 Stylized Facts of Public and Private Investment in Oman

As mentioned in Chapter 3, both public and private investment ratios are modest, particularly when compared to other AGC countries ratios. This, in fact, is as result of the modest ratios of national savings. This is caused by several factors, the most important of which are the increasing rates of government and private consumption, and the increasing rates of remittances by expatriate workers.[§] "The potential for Omanization to impose significant as well as financial costs needs to be borne in mind by the Government in pursuing Omanization at the sectoral and company levels. The impact of such public intervention should be closely monitored to identify any adverse financial and economic consequences. The Government's aim should be both to eliminate existing market imperfections and avoid creating new ones." Private investment is dwindling due to a combination of the lower productivity of capital and the public sector's crowding out effects. Businesses in the private sector are investing only the amounts necessary to maintain the existing stock of capital, without adding

[§] For more details about this issues see Chapter 3

much to output growth (IMF 1994: 44, 107). Another issue which is retarding the development of the private investment in Oman is the inappropriate allocation of the credit flow, to the private sector from the banking system.

Moreover, some public functions must be put into effect, new opportunities for private business to move into tradable goods production must begin to open up. If the government wishes to strengthen the private sector, it is important at this stage for the private financial system to be able to participate fully in providing funds for investment and to establish direct links with private sector. (IMF 1994: 94)

In order to present the development of public and private investment in Oman's economy, shares of public and private investment to GDP as well as their growth rates for the period from 1971-2002 are shown in Table 5.1. From the table, both public and private investment ratios have declined substantially since the beginning of the period. It is also apparent from the same table that the lack of private investment emerges to reflect the dominance of public spending. In fact, public investment exhibits a declining trend during the period. Moreover, the low levels of private investment experienced during the period demonstrate the lack of appropriate policies for the planned strategies to encourage private investment and privatization. The main rationale of such policies and strategies was to boost private investment in the national economy and to augment economic development through market forces. Nonetheless, these policies have resulted in a decline in the growth of public investment. The relatively higher growth rates of private investment in 1997 and 1998 can be attributed also to growth-oriented strategies along with the policies of liberalization and de-regulation. Furthermore, in order to control the increasing budget deficit, the fiscal policymakers started reducing public sector development. However, these policies resulted again in lower private investment in the period of 1999-2002. With this backdrop, in addition to the inverse impact of government investment expenditure on growth which was determined in the previous

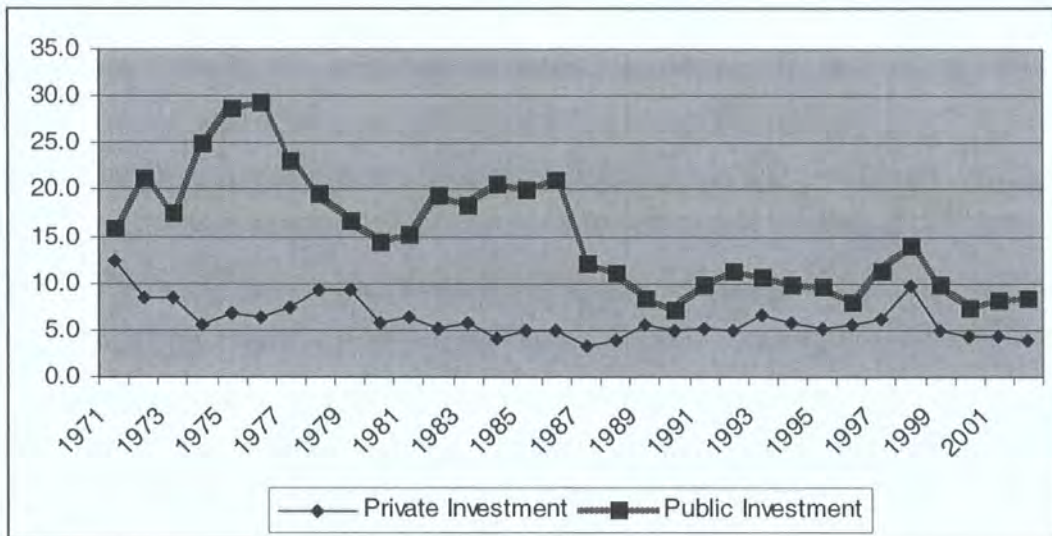
chapter, it has become essential to explore whether public investment is crowding-out/in private investment (Hyder 2002).

Table 5.1: Development of Public and Private Investment as (%) of GDP

Year	Public Investment	Public Investment Growth	Private Investment	Private Investment Growth
1971	16	0.33	12.5	-0.31
1972	21.2	-0.17	8.6	0.00
1973	17.7	0.42	8.6	-0.36
1974	25.1	0.14	5.5	0.25
1975	28.7	0.02	6.9	-0.06
1976	29.4	-0.21	6.5	0.15
1977	23.1	-0.15	7.5	0.23
1978	19.7	-0.15	9.2	0.01
1979	16.7	-0.13	9.3	-0.38
1980	14.5	0.06	5.8	0.10
1981	15.3	0.28	6.4	-0.19
1982	19.6	-0.06	5.2	0.10
1983	18.5	0.12	5.7	-0.28
1984	20.7	-0.03	4.1	0.24
1985	20	0.06	5.1	-0.02
1986	21.1	-0.42	5	-0.34
1987	12.3	-0.09	3.3	0.21
1988	11.2	-0.25	4	0.40
1989	8.4	-0.13	5.6	-0.11
1990	7.3	0.36	5	0.04
1991	9.9	0.15	5.2	-0.06
1992	11.4	-0.05	4.9	0.37
1993	10.8	-0.07	6.7	-0.15
1994	10	-0.02	5.7	-0.09
1995	9.8	-0.18	5.2	0.10
1996	8	0.43	5.7	0.11
1997	11.4	0.24	6.3	0.56
1998	14.1	-0.30	9.8	-0.49
1999	9.9	-0.24	5	-0.12
2000	7.5	0.11	4.4	0.00
2001	8.3	0.04	4.4	-0.11
2002	8.6	-	3.9	-

Source: MONE, several publications.

Chart 5.1: Development of Private Investment and Public Investment as (%) of GDP



Source: Table 5.1

5.4 Crowding-out: Theory and Empirics

Needless to mention, the role of gross capital formation (public and private) in stimulating gross domestic product (GDP) or output growth is so well documented that we need not say more about it. Public investment is principally undertaken by governments for the prerequisite of public goods, while private investment is undertaken by the private sector. The impact of public investment may be twofold depending on the extent to which it substitutes for private investment or involves projects complementary to it. According to Keynesian models, in the short-run, more public spending could raise aggregate expenditure and output (Kuehlwein and Samalapa 1999). In the long-run models, more government spending on investment could enhance the size of the total capital accumulation. (Heijdra and Meijdam 1997) Investment in infrastructure and government expenditures and its maintenance as well as spending on human capital formation are more likely to crowd-in private investment. As an instance, in their study,

Ahmad and Miller (1999) stated that expenditure on some types of public projects such as communication and transport stimulate private investment in developing countries for such investment, in the short-run, may smooth the progress of technology promotion and enhance the level of productivity. In the long-run, however, it encourages the intensifying of the value-added content of production activity. Furthermore, according to these conclusions, public expenditure activates the capacity-building meant to sustain the value added deepening crosswise a range of tradable activities in reaction to changing world demand and technologies. These factors hence, stimulate private investment (Bende and Slater 2003: 2).

The issue of whether public and private sector investments are substitutes or complements has been the focus of strong controversy in economic theory and among public policy researchers. Free market supporters argue that intervention of government in the economy should be diminished. Amongst many reasons for this argument is the observation that state sector activity competes with private sector for scarce resources and drives prices up. For instance, a rise in market interest rates and thus raises the cost of capital for the private sector could take place if public sector investments are financed by borrowing. This, as a result, leads to private sector projects becoming unprofitable. They are crowded-out in other words (Atukeren 2005: 307).

Abel and Bernanke (1992), declared that economic theory suggests that public investment expenditure has a significant relationship with both the rate of private investment and economic growth. It is true that if public investment enlarges, a smaller quantity of funds will be available for private investment. This happens as competition will thereby force the interest rates to rise up leading to a lower level of private investment. While, according to Neoclassical thought, this process will only result in a redistribution of gross national income between the public and the private sector and the rate of economic growth will remain intact, Keynesians argue that the effect of the

multiplier of higher public expenditure will be larger, as compared to the induced negative impact of reduced private investment on the rate of economic activity and therefore, gross national product will increase. These two views have traditionally been documented as “the full crowding-out” and “the partial crowding-out” hypotheses respectively (Hyder 2002).

Aschauer (1989b: 171) stated in answer to the question “Does higher public capital accumulation crowd-out private investment in plant and equipment? That on the ground of neoclassical theory the answer is seen to depend upon two essential, opposing forces. Firstly, higher public investment increases the national rate of capital accumulation above the level chosen by private sector agents and hence, public capital spending may crowd-out private expenditures on capital goods on an *ex ante* basis. This is because individuals look for re-establishing an optimal inter-temporal allocation of resources. Secondly, public capital, principally infrastructure capital such as highways, water systems, sewers, and airports, is likely to bear a complementary relationship with private capital in private production technology. Therefore, higher public investment may raise the marginal productivity of private capital and, thereby, of crowd-in private investment. Isolating these separate effects will allow:

- A test of the appropriateness of the equilibrium approach to fiscal policy (the former effect);
- Information on the productivity of public capital (the latter effect) and;
- A resolution of the query of whether or not public capital spending can affect the national capital stock to a substantive degree.

Moreover, according to Atukeren (2005: 307), it can be argued that public investments may be advantageous in the process of the private sector development. The government sector, for example, can afford investment in infrastructure projects that have large sunk costs that require a long period before they become profitable. From such public sector

investments during and after the completion of the project, the private sector may benefit from the spill over. Examples of this:

- Developed infrastructure for roads and railways reduces transportation costs, and thus facilitates a better business environment;
- Investing in education and health care facilities can help improve the level and the quality of human capital in an economy;
- As an aggregate demand management tool, government investments might be used as a counter-cyclical economic policy measure to smooth the business cycle and revitalise the private sector activities.

According to Hyder (2002) and Barth and Cordes (1980), a better way to test for crowding-out would be to explore the dynamic interaction between public and private investment and economic growth . This direct method utilizes multivariate time series techniques to probe long-run effects of public investment on private capital formation and economic growth between these variables. This study follows this methodology and extends the work to analyze the existence of a crowding out phenomenon in the Sultanate of Oman for the period 1971-2002.

5.5 Data and Modelling

According to the theory, the interaction between public and private investment can be envisaged in several ways:

- An increase in public investment as a constituent of aggregate demand will increase economic growth. Moreover, enhancement in the economic and social infrastructure due to increased public spending can result in a higher rate of return on private capital, which will eventually encourage private investment;

- An increase in private investment may raise demand for expanding infrastructural facilities;
- An increase in public investment (e.g. in heavily subsidized and ineffective state owned enterprises) may reduce the possibilities for private investment and long-run growth (Hyder 2002: 8).

According to Moshi and Kilindo (1999), Van Wijnbergen (1982), Lim (1987), Dailami (1990) and Blejer and Khan (1984), credit policy influences investment directly, since credit is allocated to firms with access to preferential interest rates rather than through the indirect interest rate channel. Therefore, the effect of monetary and credit policy on investment and the means of transmission depend on the institutional formation of financial markets (Seruvatu and Jayaraman 2001).

Time series data from 1971 to 2002 obtained from the Ministry of National Economy in the Sultanate of Oman has been utilized in a regression uses OLS estimator as a method, choosing the most used variables by the previous studies, and that assumed to determine the private investment in the Sultanate. The final regressors are: private investment as a proportion of GDP (PI), as a dependent variable; government investment to GDP , the credit flow to the private sector from the banking system to GDP (CR), GDP growth (GR), foreign exchange availability proxied by import capacity to GDP (IM) (Moshi and Kilindo 1999: 16), the population growth ratio, as a proxy to market development (PG); all as explanatory variables. Accordingly, the regression function will take the following form:

$$PI = f(GI, CR, GR, IM, PG) \quad (1/5)$$

The series were converted to their natural logarithm form, and the above-mentioned model according to the following OLS equation is presented below:

$$PI = a_0 + a_1*GI + a_2*CR + a_3*GR + a_4*IM + a_5*PG + e \quad (2/5)$$

5.6 Empirical Results on Crowding-Out in Oman

The Augmented Dicky Fuller (ADF) test was utilized to check for unit-roots in each series in the sample. From Table 5.2 only one of the series, GR, has been found to be stationary, or I(0).The null hypothesis of the presence of unit root, accordingly, is not rejected for the remaining series.

Table 5.2: Empirical Result of Testing for Stationarity

Series	Level
PI	-2.438699
GR	-2.816433*
GI	-1.486391
IM	-1.962789
PG	-2.019532
CR	-1.096455

* Indicates statistical significant level of rejection of the null hypothesis of a unit root at the 10 per cent.

Any economic time series can be integrated in its level. Accordingly, the Engle and Granger (1987) two- step procedure for modelling the relationship between variables was utilized to check for the existence of cointegration. The applied cointegration test determines the existence of a long-run relationship between the variables. The variables were found to be cointegrated. Consequently, it is possible to conclude in favour of cointegration, rejecting the null hypothesis of no cointegration and accepting the alternative.

Based on the above mentioned results, the outputs of the cointegration regression are summarized in the next section. From the summarised results in Table 5.3, evidence emerges to indicate that public investment is statistically significant and negatively determines private investment. This suggests a substituting as well as complementary effect. The regression indicates that this has been true for the case of Oman. There is a strong negative correlation between the two variables. The t-statistic of -3.07 is significant at 99 percent level, demonstrating that the estimated negative impact of the public investment as a share of GDP on investment is dependable. The -0.44 coefficient for the size of public investment variable indicates that a 1 percentage point increase in public investment as a share of GDP, reduces private investment as a share of GDP, by 0.44 percentage points.

The crowding-out effects of public investment possibly suggests that the government has invested in projects which are substitutes for private investment. The statistically significance and positive effect of imports on private investment denotes the importance of this variable in explaining the development of private investment in the Omani economy, and as a crowding-in factor. GDP growth induces crowding-in effects typical of its accelerator characteristics. As expected, population growth crowds-in private investment. Due to the inappropriate allocation of the credit flow to the private sector from the Omani banking system in Oman, it has been anticipated that this variable plays a negative role in the development of private investment. The inappropriate allocation of the total credit index clearly indicates that a big proportion of total credit is allocated to consumption purposes. While a significant proportion is devoted to personal loans, which are consumptive in nature, the productive sectors such as exports, agriculture and manufacture receive insignificant proportion, relative to their importance. For instance, while the allocated amounts, by the end of 2002, for some productive sectors such as exports, agriculture and manufacture are not more than 0.16%, 0.77% and 8.8% respectively, the amount assigned for personal loans (consumptive uses in nature)

exceeded 35.5%, and has become 42% recently. This in fact presents the weak interaction between monetary and fiscal policy, as well as the other economic policies, in the process of achieving the planned growth objectives.

Table 5.3: Regression Results

Dependent Variable: PI

Variable	C	GI	IM	GR	PG	CR
Coefficient	-1.93	-0.44	1.16	0.04	0.19	-0.22
t-Statistic	-7.00	-3.07	5.08	1.45	1.86	-2.31
Probability	0.000	0.007	0.000	0.164	0.079	0.033
R2	Adjusted R2	F Statistics	Durbin-Watson			
0.75	0.67	10.58	2.08			

5.7 Concluding Remarks and Policy Implications

The chapter has proved that the reduction of the role of government in the economy is a key element in increasing the role of the market mechanism in the Omani economy. According to the programmes recommended by the World Bank and the IMF, decreasing the role of the government will reduce barriers to private initiative and will motivate private investment activities, both qualitatively and quantitatively. Increased private investment ultimately leads to higher economic growth. Moreover, the IMF expects the existence of a crowding-out of public investment on private investment, indicating that “Private investment would dwindle due to a combination of lower productivity of capital and the public sector's "crowding out" effects.”

The chapter has also demonstrated the importance of the private sector in the national economy. In this cadre, the chapter has shown that the private sector may be referred to, as the main 'engine' for economic growth. It may be said to have the following benefits:

- (i) Growth in private sector generates employment opportunities;
- (ii) Creating income for people;
- (iii) Providing governments with tax revenues enabling it to fund crucial basic services;
- (iv) Produces the goods and services people need to improve their quality of life.

Both public and private investment ratios in the Sultanate's economy are modest particularly when compared to the other AGC countries ones. Private investment is dwindling due to a combination of lower productivity of capital and the public sector's crowding-out effects. Another issue which is retarding the development of the private investment is the inappropriate allocation of the credit flow to the private sector from the banking system. If the government wishes to strengthen the private sector, it is important at this stage for the private financial system to be able to participate fully in providing funds for investment and to establish direct links with private sector.

The chapter also has shown the development of both public and private investment. Public and private investment ratios have declined substantially since the beginning of the period and private investment emerged to reflect the dominance of public spending. Additionally, public investment exhibits a declining trend during the period. Moreover, the low levels of private investment experienced during the period show the lack of appropriate policies towards the strategies planned to encourage private investment and privatization. The main rationale of such policies and strategies was to boost private investment in the national economy and to augment economic development through market forces. Nevertheless, these policies resulted in a decline in the growth of public

investment. The relatively higher growth rates of private investment in 1997 and 1998 can be attributed to growth-oriented strategies along with the policies of liberalization and de-regulation. Furthermore, in order to control the increasing budget deficit, fiscal policymakers started reducing public sector development.

However, these policies resulted again in lower private investment in the period of 1999-2002. With this backdrop, in addition to the inverse impact of government investment expenditure on growth which was determined in the previous chapter, it essential to explore whether public investment is crowding-out private investment.

In order to examine the existence of the issue, the chapter utilized a model suggested as being suited to the case of Oman. The results indicate that there is evidence that public investment is dominant, statistically significant and negatively determines private investment. This suggests a substituting as well as complementary effect. The -0.44 coefficient for the size of public investment variable indicates that a 1 percentage point increase in public investment as a share of GDP, reduces private investment as a share of GDP, by 0.44 percentage points.

The crowding-out effects of public investment possibly suggests that the Government has invested in projects which are substitutes for private investment. The statistical significance and positive effect of imports on private investment denotes the importance of this variable in explaining the development of private investment in the Omani economy, and as a crowding-in factor. As expected, population growth crowds-in private investment. As anticipated, the inappropriate allocation of the credit flow, to the private sector from the banking system plays a negative role in the development of private investment.

So far, the findings of the study demonstrate the need for more effective and efficient fiscal policies. The next chapter will consider other pressing issues towards an overall fiscal balance such as those policies adopted in the framework of planned fiscal deficits and public debt.

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CHAPTER 6: INTERNAL AND EXTERNAL DIMENSIONS OF FISCAL BALANCE: EMPIRICAL RESULTS FOR OMAN

6.1 Introduction

The chapter is divided into 3 main sections. The first section aims to present stylized facts about the fiscal policies adopted towards budgetary deficit and public debt in the Sultanate of Oman. The purpose of the second section is to study the internal dimension of the effects of the fiscal deficit and public foreign debt. The contemporaneous relationship among the budgetary deficit and public foreign debt and the growth ratios of GNP and GNP per capita, is examined. A pairwise Granger causality test to inspect the direction of causality between the changes of foreign public debt and budgetary deficit and GNP/GNP per capita growth will be utilized. If the empirical evidence provides any stand on the existence of any causal relationship running either from foreign public debt or from the budgetary deficit to GNP or GNP per capita growth, then this will give a clear indicator that the foreign public debt and the budgetary deficit or one of them contributes to the economic growth in Oman. Otherwise the currently adopted fiscal policies towards foreign public debt and the planned budgetary deficit need further investigation, on the ground that controlling the budgetary deficit will may affect GNP negatively require further assessment.

The third section of the chapter considers the external dimension of the effects of budgetary deficit and public foreign debt. Namely, the section is dedicated to examining the effects of fiscal deficit on the Omani balance of payments and the existence of the “twin deficit”^{*} phenomenon in the Omani economy. OLS analysis

^{*} The phenomenon is discussed briefly later in this chapter.

and the Granger bivariate causality test using vector autoregression (VAR) will be employed. If the empirical evidence suggests a Ricardian relationship, then this implies that the fiscal deficit has no influence on the balance of payments deficits.

However, if it is a unidirectional causality from budget deficit to both the current account and the trade deficit of the balance of payments in the case of the Sultanate of Oman, then this supports the Keynesian proposition[†] and, hence would provide a sustained view that fiscal policy measures, which are able to reduce budget deficit, may also contribute to maintaining an external equilibrium.

6.2 Stylized Facts of the Fiscal Deficit and Public Debt in Oman[‡]

6.2.1 The Planned Fiscal Deficit Policy

The state's public budget is a reflection of the economic situations prevailing in a particular country. Countries make great efforts to balance their budgets and overcome their deficit. However, a shortfall in revenue may occur, leading to a deficit in the public budget. There is a difference between two types of deficit: first, the overall (total) deficit which will be clear once the final gross expenditure can be determined after meeting the uses by the revenues; second, the net deficit which is the total deficit after adding the available local financing resources such as domestic savings and income through government bonds.

As demonstrated in Table 6.1, the Sultanate's budget has been making deficits ever since 1982. Before that year it was alternated between deficit and surplus. At the

[†] The Ricardian and the Keynesian views regarding this issue will be illustrated in the third section of the chapter.

[‡] The analysis in this section of the chapter is based not only on the national statistics, but a number of interviews held by the researcher with executives in the Ministry of Finance, the Ministry of National Economy and Central Bank of Oman.

same time, finance by government bonds was not adopted until 1991. The negative impact of the deficit on the national economy can be seen in the ratio of deficit to the

Table 6.1: Fiscal Deficit as % of Total Revenue and GDP

Year	Deficit as % of Total Revenue	Deficit as % of GDP
1982	20	8.6
1983	23.4	10
1984	31.3	13
1985	22.6	9.9
1986	59	22.3
1987	10.2	4.5
1988	30.1	11.2
1989	21.6	8.2
1990	0.6	.3
1991	17.9	6.5
1992	34.4	12.1
1993	30.1	10.8
1994	28.2	10
1995	26	9
1996	13.2	4.5
1997	1.8	0.7
1998	20.3	6.9
1999	26.3	7.9
2000	14.7	4.4
2001	12.6	4.2
2002	12.3	4.1*

Source: (MONE, several publications)

* Provisional

GDP. In reality, this ratio is no more than excess demand that has no actual resources to cover it (Zaglul 2000: 33-35).

The rate of the deficit to GDP in 1982, as per Table 6.1, was 8.6%. It rose up to 10% in 1982, then 13% in 1984, and to 22.3% in 1986. It had reached 7.9% by 1999. However, thanks to rising international oil prices, the deficit started to decrease.

Failure to comply with the development plans at the stage of implementation is, in fact, an important and fundamental reason behind these deficits. The Fourth Five Year Plan (1991-1995), for instance, estimated a deficit between government revenues and uses is of 879 million RO, whereas the actual deficit for the period reached 2355 million RO, a discrepancy ratio of 168% from planned. This was due to the huge rise in total governmental expenditure, which rose from 9450 million RO as planned to 10953 million RO in reality (MONE 1991).

Moreover, the following was stated in the Fifth Five Plan (1996-2000):

“As per the plan, the deficit between the revenues and government uses will start in gradual decrease as from year 1996, and the total balance between revenues and uses will materialize in year 2000” (MONE 1996). Nevertheless, according to the actual figures of the plan years, there was a deficit of 1475.7 million RO. This is shown in Table 6.2:

Table 6.2: The Actual Figures Of the Fiscal Deficit from 1996-2000 (Million RO)

1996	-263.5
1997	-40.1
1998	-375.3
1999	-472.3
2000	-323.9
Total	-1475.7

Source: Central Bank of Oman, Annual Report, 2000.

These huge discrepancies between what was planned and what was implemented mean that the (structural) deficit in the government's budget, shown above, cannot be controlled without strict and serious measures to control the huge rates of growth in government spending and promoting new sources income.

It is widely accepted that encountering government's budget deficits should have top priority in any economic reform programme, especially if the causes of the deficits are structural and not accidental. The national economy will gain many benefits from the reduction of the deficit such as decreasing the country's tendency towards foreign borrowing, and consequently servicing its foreign debts. In addition, reducing the government's need for internal borrowing which in itself will reduce the cost of debt service[§]. Moreover, the country could regain international trust in its national economy, and this is important in terms of attracting foreign investment. (Zaki 2000-143)

In addition, conditions of monetary and price stability that follows treatment of the deficit, is bound to increase the confidence of citizens in their national currency. This

[§] Especially, as shown in chapter 4, this type of government expenditure is negatively affects growth.

will encourage them to use their national currency as a means of saving, thus reducing or ending their current preference for US\$ (Dollarization phenomenon) well as a capital and savings flight phenomenon. There is another important matter concerning private sector investments. This is the possibility of falling interest rates as a result of the government reduced need for internal borrowing and to compete with the private sector. This is of course, based on the assumption that this factor plays a significant role in reducing private sector investment due to crowding-out effects^{**}. Moreover, controlling fiscal deficit may protect the exchange rate of the Omani Rial deteriorating, and maintain the state's reserves and assets from liquidation. Thus, the reserves would continue benefiting and supporting the government budget (Zaki 2000).

Furthermore, according to the statistics of the Central Bank of Oman (CBO)^{††}, there are difficulties and negative economic influences which go hand in hand with the process of financing the budget deficit such as:

- (i) Unreliability of the net foreign borrowing. During the years 1987-1989 contributed to the budget deficit of 8.1 million RO. However, throughout the following three years as well as in 1998 and 1999, the net foreign borrowing was negative and a burden on the public budget. During the period from 1993 to 1997 it had been positive and contributed in financing the deficit by 43.9 million RO. In general, this is an unreliable and instable source;
- (ii) The Withdrawals from the state reserve had covered the biggest proportion of the deficit. In 1986 it covered 75% and in 1999 it reached 98.5%. Its average during the period from 1981- 1999 was 65.6% at a value of 3034.3 million RO. Thus, reliance on this source to finance the deficit was viewed as paramount. However, the use of this source has a number of

^{**} The existence of such a phenomenon in the Omani economy was inspected in chapter 5.

^{††} CBO Annual Report, several years.

disadvantages. The most important of which is liquefying and hence deteriorating the generations' fund and the Omani national reserves;

- (iii) Government development bonds which had been utilized from the fiscal year 1999 had been an important internal source but their use as a source of finance is remained low. Their value began to decrease till it became negative in the years 1998 and 1999. In fact, its average contribution during the period did not exceed 7.3%.

The tiny contribution made by government bonds in financing the fiscal deficit reflects the under-utilization of savings avenues available in spite of that there are many public pension funds among which:

- The Royal Oman Police Pension Fund;
- Diwan of the Royal Court Pension Fund;
- The Public Authority for Social Security;
- Ministry of Defence Pension Fund;
- Sultan Armed Forces Pension Fund;
- Ministry of Royal Office Pension Fund;
- Royal Guard of Oman Pension Fund;
- Internal Security Institution Pension Fund....etc.

Added to these must be the funds belonging to the private sector and the savings of individuals.

Utilizing such savings in financing the budget is still insignificant. This can be attributed to the deterioration in national savings^{‡‡}

^{‡‡} For more details about this issue, see Chapter 3.

In fact, the fiscal imbalance of the Omani budget was the major motivation for the accumulation of public debt, as will be shown in the next section, when borrowing policy is considered.

6.2.2 Government Borrowing Policy in Oman: Internal and External Borrowing

Regarding the public debt choices, the World Bank (2005a: 7-8) states that despite the growing superiority of international capital markets and a steady growth in the capacity of central banks and monetary authorities in developing countries, noteworthy weaknesses remain both in the international architecture that has evolved to control these markets and in the quality of data available on the fast-growing domestic debt markets in many emerging market economies. Improving the monitoring and dissemination of information on public and private domestic debt should remain a priority for a country. With the huge increase in the stock of external and domestic debt, new challenges have emerged. On the positive side, lower external debt reduces vulnerability to external shocks (related to exchange rates or interest rates). This in turn constructs confidence among international investors who offer facilities to a country. In addition, this can relieve pressure on exchange rates and raise credit ratings which can lead to lower external borrowing costs as well as increasing asset demand as the economy shift into a risk class more open to institutional investors. However, switching to domestic debt heightens other risks such as the uncertainties of rolling over short-term debt and associated interest-rate risks.

According to the World Bank (2005a: 7-8), in order to minimize risk domestic borrowing, like external borrowing, must be based on:

- Sound measures for managing public debt;
- A capable tax system;
- Effective regulatory and legal environment for domestic financial activity;

- Exchange-rate management remains particularly crucial. This for the reason that international demand for domestic assets will be critically affected by perceptions of the soundness of exchange-rate policy and concerns over volatility and convertibility;

Finally, as a debt crisis ignited by extreme domestic borrowing can be just as devastating as one created through external borrowing, and a domestic debt problem can quickly grow to affect external debt, any temptation to borrow excessively from domestic sources needs to be resisted (World-Bank 2005a)

Internal government borrowing is a reference to the government borrowing in national currency from the local market. There are two types of local loans. They depend on the type of the economic unit offering the facility. These are nominal borrowing and actual borrowing. Nominal borrowing is when government borrows from the banking system (the central bank and commercial banks). This type of borrowing has the consequence of new purchase power and the transfer of it to the government without rising the income and wealth of the community units and individuals. The quantity of supplied money is increased and therefore this type of borrowing is no more than a hidden method of increasing the money supply. Actual borrowing is when the government borrows from individuals and non-banking establishments and saving avenues. They hand on their existing purchase power to the current of income in the form of interest, and the return of the loan assets at the time of payment (Zaglul 2000: 7-8).

In addition to foreign borrowing, the Omani government has resorted to nominal and actual borrowing due to the imbalances in its budget resulting from the inability of revenues to meet applications. The statistics of the Ministry of Finance-MOF (2001) shows the components of the government's internal borrowing during the period 1991-1999. According to this publication, before 1991 the finance by development

bonds was not adopted and the government was indulging in the nominal borrowing. Net borrowing financed by treasury bonds came down from 64.6 million RO in 1991 to 38.2 million RO in 1999. It was negative in certain years and this shows the dependency on short-term foreign loans. Borrowing from the commercial banks and the central bank during the period fluctuated. Borrowing from the commercial banks began to decrease as from the year 1997, whereas borrowing from the central bank increased in the year 1998 by more than 12 times compared to the year 1997. This can be attributed to the shortfall in government revenues caused by the deterioration of oil prices in the year 1998. There was no borrowing from either of these two sources in 1999. The structure of the government internal borrowing has shown the shortcomings of a low reliance on borrowing from actual savings (borrowing by government development bonds). This happened despite the fact that the rates of foreign borrowing were on the rise. This shows the lack of an ideal borrowing strategy and a need to coordinate fiscal policy and monetary policy in managing public debt^{§§} as well as exposing the absence of any clear vision to control the technical and economic specifications concerning the advantages and disadvantages as well as the preference process between internal and external borrowing.

These issues, together with the crowding-out effect of public investment on the private sector investment^{***} and the deteriorated domestic and national savings, in fact, represent pressing factors towards the adoption of a balanced budget, particularly, if the structure of public foreign debt has its own shortcomes.

As regards foreign borrowing policy, the total debt stock of the Sultanate, according to the figures of the World Bank (1990; 1997; 2000; 2001; 2005b) had been growing during most of the period . It rose from 289.9 million RO in 1981 to 1786 million RO in 2002. The total debt stock reached 2633 million RO in 1999. It must be emphasised also that, as per the figures of IMF the total of the Sultanate's foreign

^{§§} This issue has been discussed briefly in Chapter 2

^{***} For more details about this issue, in the Sultanate's economy, see the previous chapter.

debts in 1999 was 2603 million RO. This means that the total debt represents more than 43% of GDP and more than 93% of the exports in the same year. These figures indicate that total debt increased by 378% (Chabrier and Seade 2001: 31). The data also confirmed the rise in short-term loans. This may mean resorting to short-term loans to pay off the long-term debts and to finance the budget deficit. At the same time, the official sources' withdrawing from the loans did not exceed 29% of the total during the period. Facilities obtained from foreign private creditors were also increasing against those from foreign public creditors. The risks and negative aspects of short-term loans as well as the risks accompanied with borrowing from private sources are documented very well in the economic literature, either through the impositions of harsh conditions or the failure of private creditors generally to compel borrowers to use the loans in viable productive purposes. This, undoubtedly proves, that there are shortcomings in the foreign public debt structure of the Sultanate.

Due to the increase of foreign debt service one year after another, a net reverse flow of resources has occurred from the Sultanate to the creditor countries and bodies. This is shown in Table 6.3, the cost of foreign debt service rose from 85 million RO in 1980 to 653 million RO in 2002. As it apparent from column 4 of the same table, there are resources' net reverse flows from the Sultanate. It stood at (-5.4) Million RO in 1981 to reach (-1155) million RO in 2002. Thus, the rise of debt service to this level meant a rise in the outside world's share in the fruits of the Oman's wealth, and the achievements of national development. This demonstrates that the acceptance of a low rate of development that depends on local resources is more practical, as this is the way the members of the community can benefit from these resources and hence, is by far better than a high rate of development depending on foreign resources but where the most of its benefits go outside of the country in the form of immense debt service. Accordingly it can be concluded that this kind of financing resources is absolutely risky and unreliable.

6.2.3 Contribution of Foreign Debt to Economic Growth in Oman

It is of great importance that the indebted countries have a clear vision of the time limit during which their national economy will continue to depend on foreign resources. During this period the economy's self-reliance could be decided. Failure to understand this would make it difficult to achieve any success in the foreign borrowing policy and prolong a country's inability to achieve economic self-reliance. There are two essential conditions for any borrowing policy in order to achieve economic self-reliance: a continuous effort to reduce the local resources gap, i.e. reduction of the gap existing between the national investment rate and the domestic saving rate and; achieving growth in the value of exports to control the deficits of the balance of payments. Moreover, several economic models and research explain how to benefit from foreign finance. An example of which, according to Zaki (1985: 51), a model demonstrates that for the national economy to benefit from foreign loans, the rate of interest of these loans should be less than the rate of growth in that economy. Thus, a borrowing with an interest rate of 8% (on average) in a developing country growing by 7% will end up in that country, after paying the debt, with less national capital than had it not borrowed in the first place .

Table 6.4 shows the Sultanate's foreign debt growth rate, its service growth rate, GDP growth rate and the rate of debt interest. The following could be noted:

- The foreign debt has high growth rates with an average of 22.9%;
- After 1982 the rates of debt service began to accelerate, reaching some huge figures particularly, in 1984, 1987, 1989, 1995 and 2001 where the growth rates were 58.1%, 312.2%, 191.2%, 361.4% and 106.9% respectively. The average growth of debt service rates reached 43.6%.

Table 6.3: Resources' Net Reverse Flows (RO.)

Year	Debt Out Standing (1)	Net New Borrowing (2)	Debt Service (3)	Net Flows (4)=(2)-(3)
1980	167706000		85816500	
1981	206591000	38885000	44313500	-5428500
1982	278393512	71802512.3	45160500	26642012.32
1983	435280975	156887463	52129000	104758463
1984	515284000	80003024.6	82428500	-2425475.36
1985	734348975	219064975	100177000	118887975.4
1986	947600488	213251512	151035500	62216012.32
1987	940400975	-7199512.32	239662488	-246862000
1988	954992488	14591512.3	205898000	-191306487.7
1989	1008854049	53861561.6	231000000	-177138438.4
1990	924076975	-84777073.9	274813000	-359590073.9
1991	952297463	28220487.7	210133000	-181912512.3
1992	901015512	-51281950.7	189728000	-241009950.7
1993	891159512	-9856000	224378000	-234234000
1994	1998881562	1107722049	202086500	905635549.3
1995	2015513562	16632000	359012488	-342380487.7
1996	2061174438	45660876.8	559482000	-513821123.2
1997	2000074926	-61099512.3	330638000	-391737512.3
1998	1873987512	-126087414	419919512	-546006926.1
1999	1926501463	52513950.7	372795512	-320281561.6
2000	2027333074	100831611	299183512	-198351901.4
2001	1830752000	-196581074	619080000	-815661073.9
2002	1328519512	-502232488	652806000	-1155038488

Source:

World-Bank (2005b);

World-Bank (2004);

World-Bank (2001);

World-Bank (2000);

World-Bank (1997);

World-Bank (1994);

World-Bank (1990);

Table 6.4: Contribution of Foreign Debt in Economic Growth

Year	Foreign Debt		Debt Service		GDP Growth	Average Interest Rate (%)
	RO	Growth	RO	Growth		
1980	167706000		33039352.5		-	7.9
1981	206591000	23.2	17060697.5	-48.4	20.7	8.3
1982	723100032	250.0	17386792.5	1.9	5.2	10
1983	1130599936	56.4	20069665	15.4	5.7	8.9
1984	1338400000	18.4	31734972.5	58.1	10.2	9.1
1985	1907399936	42.5	38568145	21.5	11.1	7.6
1986	2461299968	29.0	58148667.5	50.8	-12.5	7.4
1987	2442599936	-0.8	239662488	312.2	5.5	7.5
1988	2480499968	1.6	79270730	-66.9	-2.8	7.9
1989	2620400128	5.6	231000000	191.4	11.8	7.5
1990	2400199936	-8.4	274813000	19.0	24.7	5.5
1991	2473499904	3.1	210133000	-23.5	-2.9	5
1992	2340300032	-5.4	189728000	-9.7	9.8	5.5
1993	2314700032	-1.1	224378000	18.3	0.3	4.7
1994	5191900160	124.3	77803302.5	-65.3	3.4	4.6
1995	5235100160	0.8	359012488	361.4	6.8	5.7
1996	5353699840	2.3	559482000	55.8	10.7	6.7
1997	5194999808	-3.0	330638000	-40.9	3.7	6.7
1998	4867500032	-6.3	419919512	27.0	-11.1	3.4
1999	5003899904	2.8	372795512	-11.2	11.5	6.3
2000	5265800192	5.2	299183512	-19.7	26.5	5.4
2001	4755200000	-9.7	619080000	106.9	0.4	6.3*
2002	3450700032	-27.4	652806000	5.4	1.8	6.3*
Average	-	22.9	-	43.6	6.4	6.7

* According to the available data the figures of these two years were unreliable (0 and 1.8 respectively) Hence averages were used.

Source:

MONE (2000);
World-Bank (2005b);
World-Bank (2004);
World-Bank (2001);
World-Bank (2000);
World-Bank (1997);
World-Bank (1994);
World-Bank (1990);

Comparing the GDP growth rate with the rate of interest on foreign debt, it becomes clear that the average GDP growth rate was 6.4% whereas that of interest rates was 6.7%. This proves that the impact of the foreign borrowing on the growth in the Sultanate was negative. Instead of improving the growth rate it became a burden on it.

6.2.4 The Erosion of the Omani Domestic Savings by Debt Service

Initially, foreign finance may increase the total sum for investment and consequently increase the GDP growth rate in addition to improving the balance of payments. This is on the assumption that the inflow of capital exceeds the debt service to the external creditors. When the debt service expenses exceed the flow of incoming capital, the net reverse flow of the resources into the crediting country turns into a burden on the rate of domestic savings. The negative impact of the debt service expenses on domestic savings rates can be calculated through the ratio of debt service (as a ratio of the GDP) to the rate of domestic savings (as a ratio of the GDP). The higher this ratio rises the more domestic savings deteriorate, in accordance with these high expenses (Zaki 1985: 139, 142)

Table 6.5 shows an increase in the deterioration (erosion) of domestic savings rates. In 1981 it was 2%. It continued to rise and reached 36% and 50% in 1996 and 1998 respectively. Although, the ratio decreased to 24% by the 2002, it still demonstrates that debt service swallows nearly one quarter of domestic savings^{†††}. It declined somewhat after that but then resumed its upward trend.

In the light of this, together with other findings in Chapter 4, foreign borrowing has had a negative impact on the national economy from a number of angles. Concerning the public budget, it burdens the budget with big expenses, which could have been

^{†††} For more details about the deterioration of domestic and national savings in the Omani economy, see Chapter 3.

directed towards reducing the deficit and drawing a balance, or directed to any type of productive government investment. Concerning the economy's ability to accumulate savings and mobilize economic surplus to reach the stage of self-reliance and raise productivity, the mechanism of foreign borrowing works in the opposite direction. The expenses of debt service are still on the increase despite the downward trend in net borrowing.

According to Ter-Minassian and Allen (2004: 38) reaching an overall fiscal balance with a sustained public debt could be achieved by applying the following model:

$$PD = D/Y (1+Y) \quad (1/6)$$

Where PD is public debt ratio, Y indicates the growth rate of nominal GDP , D/Y is fiscal deficit ceiling. If the fiscal deficit is always equal to the ceiling D/Y , the public debt ratio will stabilize at the level PD . This presents an appropriate approach to control both budgetary deficit and public debt since "the steady-state public debt ratio will be higher, the lower the rate of growth of nominal GDP and the higher the deficit ceiling. For example, with nominal GDP growth of 4 percent and a deficit ceiling of 2 percent, the public debt to GDP ratio would stabilize at around 50 percent of GDP . Under a balanced budget rule, the public debt ratio would tend to zero as long as nominal GDP growth is positive".

One of the Keynesian's justifications of unbalanced budget is that boosting government expenditure help in enhancing national income through the effect of multiplier. In the coming few lines the influences of fiscal deficit issue of the Omani public budget will be examined. The inspection will treat some issues that are expected to be essential in any economy. These issues are divided into two main parts: the internal dimension of the budgetary deficit which will inspect how this deficit affects GNP ; and the external dimension which will tackle how budgetary deficit relates to Omani balance of payments. In this regard Keynesian thought assumes that fiscal deficit causes a deficit in the balance of payments. The

Ricardians, however, claim the absence of any relationship between fiscal and balance of payments deficits.

Table 6.5: The Erosion of Domestic Savings by Debt Service

Year	Debt Service % GDP (1)	Domestic Saving % GDP (2)	Erosion in Savings (1) / (2)
1981	1	47	2
1982	1	39	3
1983	1	39	3
1984	1	37	3
1985	1	37	3
1986	2	25	8
1987	7	34	21
1988	2	24	8
1989	6	29	21
1990	6	32	19
1991	5	23	22
1992	4	26	15
1993	5	23	22
1994	2	24	8
1995	7	23	30
1996	10	28	36
1997	5	29	17
1998	8	16	50
1999	6	26	23
2000	4	39	10
2001	8	34	24
2002	8	33	24

Source: See Table 6.4

6.3 The Internal Dimension- Government Size Impact on National Income in Oman

6.3.1 Introduction

This section of the chapter is aimed at the internal dimension of the effects of fiscal deficit (the expansionary fiscal policy) and public foreign debt inflows. In this framework, the section will inspect the causation relationship between fiscal deficit and public foreign debt and GNP/ GNP per capita. The purpose behind this is to probe whether an expansionary fiscal policy and inflows of public foreign debt contribute to GNP/ GNP per capita. Based on the results, the study will recommend the suitable fiscal policy.

The causality relationship between the budgetary deficit and public foreign debt and the growth ratios of GNP and GNP per capita, is examined. The Granger causality test to study the direction of causality between the changes of foreign public debt and budgetary deficit and GNP/GNP per capita growth will be utilized. If the empirical evidence provides any stand on the existence of any causal relationship running either from foreign public debt or from the budgetary deficit to GNP or GNP per capita growth, then this will be a clear indicator that the foreign public debt inflows and an expansionary fiscal policy or any of them will contribute to national income growth in the case of the Sultanate of Oman. Otherwise the fiscal policies currently adopted towards foreign public debt and the budgetary deficit will need further investigations and the argument which states that controlling the budgetary deficit may affect GNP will require further assessment.

The traditional concept of the overall fiscal deficit is defined as the difference between government revenue and government expenditure (including both government consumption and investment). The accumulated value of the deficit is the gross national debt. The primary concern underlying the overall fiscal balance is

that, unless the deficit is limited, the private capital stock will be crowded-out and that government debt will accumulate to a point where it will become unsustainable and ultimately harm the economy by causing payments arrears, inflation, or even default. (Hernandez-Cata 2004: 18) However, as stated earlier, some economic theories suggest that unbalanced public budget and foreign public debt flows can cause growth in national income, and so do inflows of foreign public debt. This part of the chapter will attempt to throw light on this issue. It will examine whether there is any causation relationships exist between fiscal deficit and foreign public debt inflows and national income.

6.3.2 Empirical Methodology and Data Description

Time series data obtained from the Ministry of National Economy and Central Bank of Oman, defined as changes in foreign public debt stock and budgetary deficit to GNP and GNP/GNP per capita growth rates. A vector autoregression (VAR) techniques applying F test methodology is utilized to examine the observed inter-relationships among changes in foreign public debt stock and budgetary deficit to GNP and GNP growth in a group, and changes in foreign public debt stock and budgetary deficit to GNP and the growth rate of GNP per capita in a second group.

The final variables in these regressions are: first regression [growth ratio of gross national income (GNP), changes in foreign debt stock to GNP (D) and changes in fiscal deficit to GNP (F)] and second regression [the growth ratio of GNP per capita (GNPP) changes in foreign debt stock to GNP (D) and changes in fiscal deficit to GNP (F)].

6.3.3 Testing for Time Series Properties

Table 6.6 presents the estimated t -values from the ADF tests on each series in levels. The null hypothesis of nonstationarity is rejected for all series. Accordingly, it is possible to continue applying the standard Granger causality test

Table 6.6: Empirical Result of Testing for Stationarity Using ADF Test

Series	Outputs of ADF <i>t</i> test
GNP	-3.544667**
GNPPC	-6.967439***
D	-4.149959***
F	-3.977893***

, (*) Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 5, (1) per cent.

6.3.4 Empirical Results of the Granger Causality Test

In this section of the chapter, the Granger causality test^{†††} is utilized to test the direction of causality between changes in foreign public debt and budgetary deficit and GNP/GNP per capita growth.

The results of the pairwise Granger causality test presented in Tables 6.7 and 6.8 did not provide any stand on the existence of any causal relationship running either from foreign public debt and budgetary deficit to GNP/GNP per capita growth or vice versa. The results show that the past values of changes in foreign public debt and budgetary deficit have no predictive ability in determining present values of GNP/GNP per capita growth in the Omani economy. Similarly, past values of economic growth have no predictive ability in determining present values of GNP/GNP per capita growth. The policy of planned fiscal deficit adopted currently in the Sultanate, which is, in fact, a major factor in its accumulation of foreign public debt, needs further investigation and scrutiny. Shrinking government expenditure, as a remedy to counter budgetary deficit seems to be the appropriate fiscal policy.

^{†††} The methodology of the Granger causality test illustrated briefly in Chapter 4

Table 6.7: Empirical Results of Granger Causality Tests, Based on VAR: F Statistics

Null Hypothesis	F Test Output	Conclusion
D does not Granger Cause GNP	0.282	Accept the null
GNP does not Granger Cause D	0.181	Accept the null
F does not Granger Cause GNP	1.756	Accept the null
GNP does not Granger Cause F	1.995	Accept the null

Table 6.8: Empirical Results of Granger Causality Tests, Based on VAR: F Statistics

Null Hypothesis	F Test Output	Conclusion
D does not Granger Cause GNPP	0.240	Accept the null
GNPP does not Granger Cause D	0.135	Accept the null
F does not Granger Cause GNPP	0.320	Accept the null
GNPP does not Granger Cause F	1.760	Accept the null

6.3.5 Concluding Remarks and Policy Implications

In this section of the chapter, the Granger causality test was utilized to test the direction of causality between the changes in foreign public debt and budgetary deficit and GNP/GNP per capita growth. The results of the pairwise Granger causality test presented did not provide any stand on the existence of any causal relationship running either from foreign public debt and budgetary deficit to GNP/GNP per capita growth or vice versa. Similarly, past values of economic growth have no predictive ability in determining present values of GNP/GNP per capita growth. Hence one cannot conclude in favour of the existence of any kind of temporal precedence. This implies that the policy of planned fiscal deficit adopted currently in the Sultanate of Oman, which is a direct and major factor in the accumulation of foreign public debt need further investigation. Moreover, the view of that foreign debt contributes positively to the growth rate of national income seems to be unreliable. Based on this finding, shrinking the government expenditure as a solution to face budgetary deficiency, is suggested as an appropriate strategy.

6.4 The External Dimension -Twin Deficit: Budget and Balance of Payments Deficits

6.4.1 Introduction

The Keynesian proposition argues that there is a positive relationship between the balance of payments and budget deficits. The twin deficits hypothesis states that a budget deficit will lead to a current account deficit. And apparently a budget surplus will improve the current account deficit. If the budget is in deficit then the government is a net borrower as it known, the private plus public savings form the total national savings. In a country, the interest rates are vulnerable to increases if the public is negatively saving as a result of a diminution in national savings. Lower levels of national savings will lead to an increase in the exchange rate. An increasing exchange rate will make exports less attractive while increasing the attractiveness of imports. This worsens the trade balance which is the chief factor in current account deficit variability. Consequently, a budget deficit leads to a rise in the deficit of the balance of payments in a given country particularly, when that country finance the budgetary deficit by foreign savings (Alkswani 2002: 4).

The opposing argument against the Keynesian proposition is the Ricardian equivalence. It claims that the absence of any relationship between a deficits in the balance of payments and the budget deficit. This approach discloses that the budget deficit has no effect on the national savings as it is usually a result of a tax cut. The latter decreases public revenues and public savings. However, the decline of public savings enlarges the budget deficit, and hence a decrease in public savings will be matched by an equal enhancement in private savings. As people will rationally presume that reduced tax (the budget deficit) will have to be paid for in the future, they will increase savings to pay for a future increased burden. Therefore, domestic savings will not be affected. If this were perfectly true, then the budget deficit would have no impact on anything because it would not change national savings. In other words, the Ricardian equivalence suggests that the tax cut is a temporary procedure

and that the decline in public savings will be compensated for by an equivalent increase of private savings. Since national savings will not be affected, the budget deficit will not influence the balance of payments deficits (Alkswani 2002).

6.4.2 Theoretical Framework

In recent times, the relationship between a budget deficit and a balance of payments deficit has ignited an extensive amount of empirical work. National accounts provide for a clear relationship between budget deficits and the external balance. The basic economic identity defines income, Y , as the sum of private and public consumption, C and G , investment as I , and net exports as $X - M$ (which, for simplicity, are identified with the current account below),

$$Y_t = C_t + I_t + G_t + X_t - M_t \quad (2/6)$$

By including national saving S in the equation and rewriting the variables, the equation will be in the following form:

$$X_t - M_t = Y_t - C_t - G_t - I_t = S_t - I_t \quad (3/6)$$

The external account, therefore, has to equal the difference between national savings and investment. Based on this, the current account is directly related to saving and investment in the economy. Consequently, while the policies supporting investment have negative effects on the current account, policy measures reducing private or public consumption have positive effects on the current account, as they increase national savings.

Separating public from private savings, private savings, PS , is defined as the difference between private income, PY , and private consumption, PC . Similarly, if government savings, GS , are defined as the difference between revenue, R , and expenditures, E , the equation will be:

$$X_t - M_t = (PY_t - PC_t) + (R_t - E_t) - I_t = PS + GS - I_t \quad (4/6)$$

As private savings is roughly equal to investment. It is apparent from this equation that the external account and public budget are twinned or directly interrelated. Accordingly, the fiscal balance and the external account, labeled the "twin deficits," have to move in the same direction by the same amount. (see Fidrmuc 2002; Mann 2002)

It is essential also to keep in mind that the external account has to equal the capital and financial account,

$$X_t - M_t = K_{t+i} - K_t \quad (5/6)$$

where K denotes the capital and financial account which is given as the change of an economy's net foreign assets. Therefore, a country may accumulate foreign assets or sell domestic assets to foreigners. Hence, a country which experiences large inflows of foreign capital, for instance, essentially faces a negative current account of the same size if the changes in foreign exchange reserves are ignored. This raises the question of the sustainability of current account deficits. (Fidrmuc 2002: 73,74)

A country's current account deficit is sustainable if it can be easily financed by associated foreign capital inflows. Nevertheless, if the sustainable level of the current account deficit may be indistinct, the possibility of reversal or sudden stops of capital flows has to be considered (see Obstfeld and Rogoff 1995; Milesi-Ferretti and Razin 1998a; Milesi-Ferretti and Razin 1998b; Fidrmuc 2002; Mann 2002; Megarbane 2002)

Thus it follows that accumulated deficits of current account are equal to external debt associated with a particular period T ,

$$\sum_{i=1}^T (X_t - M_t) = \sum_{i=1}^T (K_{t+i} - K_t) \quad (6/6)$$

The issue of external debt sustainability is essential in maintaining both internal and external economic equilibrium. A country's debt definitely engenders continuous flows of interest payments to creditor countries and, possibly, a repayment or debt rescheduling, portfolio restructuring, or investment withdrawal at some later point. In order to maintain a sustainable stance in the face of debtiness the country has to be able to meet all these obligations by means of export surpluses or controlling imports, though the latter is so difficult to be applied. According to Megarbane (2002), differentiating between consumption-induced and investment-induced current account deficits is another issue relating to current account deficit, as in the long run, only the latter increases productivity and export capacity. Based on this argument it can be stated that the current account issue is a long-run phenomenon. Under the assumption of consumption smoothing, the possibility that a country can finance large investment and budgetary needs or equalize negative income shocks, caused by external deficits, by definition, produces surpluses on the capital account. (see Obstfeld and Rogoff 1995; Fidrmuc 2002; Kraay and Ventura 2002)

Moreover, according to Vamvoukas (1999: 1094), increasing the impact of budget deficits by encouraging a large external deficit could be one aspect of the twin deficits phenomenon. Another phase could be a positive effect of budget deficits on interest rates. It is known that higher demand for a national currency causes its appreciation. The appreciation of the home currency, in turn, entails cheaper imports and more expensive exports. This pushes the trade balance towards deficit. As a rising deficit from an increasing in government spending affects the trade balance and the current account, a number of economists supporting the Ricardian equivalence hypothesis, argue that a fiscal deficit due to a tax cutback will have no impact on either the trade balance or the current account. They suppose that government spending is held constant and that there are no borrowing constraints and that a cut in current tax level will not affect desired national saving, since a present tax reduction is to be followed by a future tax rise has little effect on an economy.

The Ricardian equivalence hypothesis argues that government saving does not affect the equilibrium level of the trade balance, current account, interest rates, money demand, private consumption, investment, or national saving.

6.4.3 Methodology and Description of the Data

In the Omani economy, there are several ways in which changes in fiscal policy affect the balance of payments. At the aggregate level, changes in the budgetary stance will affect aggregate income and prices. This will lead to changes in imports and exports through income and price effects. At the micro level, the types of taxes and expenditure in the public budget will affect imports and exports as well as capital flows. In an oil exporting country with a limited home production base such as the Sultanate of Oman, there will probable be a relationship between fiscal balance and the balance of payments. As public oil revenues are the major source of foreign exchange. Also a large proportion of government expenditure consists of payments for imports and for other external transactions. Moreover, given the limited base of national production and a realistically open economy, the government's injection of oil revenues into the domestic income stream by means of its domestic expenditure is reflected in the imports of the private sector. Furthermore, public capital outflows (e.g. payment of debt service) may negatively influence the stance of the Omani balance of payments (Al-Hejry 1997: 305, 312).

Time series collected from the Ministry of National Economy and Central Bank of Oman for the period from 1971 to 2002. The methodology adopted to check for the existence of the twin deficit phenomenon will take two steps:

Firstly: four regressions divided into two groups as follows:

Variables in the first group are the budgetary stance, defined as the difference between government revenue and government expenditure (F), and the deficit of the current account of the balance of payments (R). The OLS method is applied by running the following regressions:

$$F_t = \alpha_0 + \alpha_1 R_t + \varepsilon_t \quad (7/6)$$

$$R_t = a_0 + a_1 F_t + \mu_t \quad (8/6)$$

Variables in the second group of the regressions are the budgetary deficit, as defined above (F), and the trade balance of the balance of payments (T). The OLS method is applied by running the following regressions:

$$F_t = a_0 + a_1 F_t + \varepsilon_t \quad (9/6)$$

$$T_t = a_0 + a_1 F_t + \mu_t \quad (10/6)$$

Secondly, the Granger causality test^{§§§} is utilized to check for the direction of causality between budget deficit and current account deficit in a group, and budget deficit and trade balance of the balance of payments, in another group. All measures are as ratios of GDP.

6.4.4 Empirical Results for Oman

Table 6.9 presents the estimated *t*-values from ADF tests on each series in their levels. The null hypothesis of non-stationarity is rejected for all series.

According to the regressions outputs presented in Tables 6.10, 6.11, 6.12 and 6.13 the relationship between the fiscal deficit and the current account deficit and the fiscal deficit and the trade deficit of the Omani balance of payments will take the following equations:

Table 6.9: Empirical Result of Testing for Stationarity

Series	ADF Test Outputs
F	-2.722531*
R	-3.020234**
T	-4.531643***

^{§§§} The framework of this methodology is illustrated in Chapter 4.

*, ** (***) Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 10, 5 and (1) per cent.

Firstly, the relationship between the fiscal deficit and the current account deficit:

$$F = -.7587 + .5343 * R \quad (11/6)$$

$$R = .0880 + 1.0736 * F \quad (12/6)$$

As shown in Tables 6.10 and 6.11 the results suggest that the coefficient of the current account deficit is found to be statistically significant and possesses a positive sign, indicating that it has a high positive impact on the fiscal deficit in Oman. Similarly, the coefficient of the fiscal deficit in the current account deficit equation is found to be statistically significant and possesses a positive sign, which suggests that it has a high positive effect on the fiscal deficit in the case of Oman. These findings suggest that the current account deficit is responsible for about .53 percentage unit of any change in the fiscal deficit. Likewise, the fiscal deficit is also responsible of about 1.07 percentage unit for any change in the fiscal deficit in the current account deficit.

Secondly, the relationship between the fiscal deficit and the trade deficit of the Omani balance of payments:

$$F = -.1926 + .6816 * T \quad (13/6)$$

$$T = .2390 + .8695 * F \quad (14/6)$$

Table 6.10: Regression Results

Dependent Variable R

Variable	C	F	
Coefficient	0.09	1.07	
t-Statistic	4.61	6.18	
Probability	0.000	0.000	
R2	Ad.R2	F	D-W
0.57	0.52	10.77	1.94

Table 6.11: Regression Results

Dependent Variable F

Variable	C	R	
Coefficient	0.08	0.53	
t-Statistic	5.62	4.70	
Probability	0.000	0.001	
R2	Ad.R2	F	D-W
0.52	0.46	8.63	2.04

As presented in Tables 6.12 and 6.13, the results suggest that the coefficient of the trade balance of the balance of payments is found to be statistically significant and possesses a positive indication, suggesting that it has a high positive impact on the fiscal deficit in Oman. Correspondingly, the coefficient of the fiscal deficit in the trade deficit of the balance of payments equation is found to be statistically significant and possesses a positive sign, indicating that it has a high positive effect

on the fiscal deficit in the Sultanate of Oman**** These findings suggest that the trade deficit of the balance of payments is accountable for about .68 percentage unit of any change in the fiscal deficit. Similarly, the fiscal deficit is also responsible for about .87 percentage unit of any change in the fiscal deficit in the trade deficit of the balance of payments.

Although, these findings confirm a long-run relationship between the fiscal deficit and the external deficits, they cannot show the direction of causality among these variables. That is to say one should know which deficit causes the other. In order to reach such a conclusion, the Granger causality test has been conducted. The outputs obtained from this test are presented in Tables 6.14 and 6.15

Table 6.12: Regression Results

Dependent Variable F

Variable	C	T	
Coefficient	-0.19	0.68	
t-Statistic	-8.00	5.66	
Probability	0.000	0.006	
R2	Ad.R2	F	D-W
0.47	0.41	7.80	2.19

**** It worth mentioning that these findings are in line with those of Al-Hejry (1997) even though he used different methodology in his study

Table 6.13: Regression Results

Dependent Variable T

Variable	C	F	
Coefficient	0.24	0.87	
t-Statistic	15.00	6.31	
Probability	0.000	0.000	
R2	Ad.R2	F	D-W
0.57	0.52	11.49	2.00

6.4.5 The Results of the Granger Causality Tests for the Deficits of Fiscal and Current and Trade Balance

The results in Tables 6.14 and 6.15 of the pairwise Granger causality test suggests that the fiscal deficit Granger causes both current account and trade balance of the balance of payments in Oman. While the null hypothesis of that the fiscal deficit does not Granger causes current account cannot be accepted (the values of both F statistics and P is statistically significant) and hence to accept the alternative, the null hypothesis of that the current account deficit does not Granger causes fiscal deficit is not rejected. Similarly, the null hypothesis of that the fiscal deficit does not Granger causes trade deficit is rejected, while the null hypothesis of that the trade deficit does not Granger causes fiscal deficit is not rejected. The findings obtained suggest: (i) the existence of the Keynesian proposition and hence the “twin deficit” phenomenon in the Omani economy.

According to Alkswani (2002), the Keynesian proposition can be summarized by two principles: (i) there is a positive relationship between trade/current deficit and budget deficit; (ii) the direction of the causality of fiscal deficit has both long- run and short-

run effects on the external equilibrium. This also suggest that the negative effect of the fiscal deficit on the overall stance of the Omani balance of payments can be attributed to the erosion of the trade balance caused by public outflows (e.g. payment of debt service). For examples, in 1991 this erosion formed 58% of the total deficit of overall balance^{†††}, while during the period from 1986 to 1990 the erosion was 42.3%. (Al-Hejry 1997: 312-313) This implies that facing the fiscal imbalances helps in sustaining the external equilibrium. In other words, in order to control external disequilibrium, fiscal policymakers have to control budgetary imbalances.

Table 6.14: Empirical Results of Granger Causality Tests, based on VAR: F statistics

Null Hypothesis	F Test Output	Conclusion
F does not Granger Cause R	6.159	Reject the null
R does not Granger Cause F	0.493	Accept the null

Table 6.15: Empirical Results of Granger Causality Tests, based on VAR: F statistics

Null Hypothesis	F Test Output	Conclusion
F does not Granger Cause T	7.436	Reject the null
T does not Granger Cause F	0.173	Accept the null

6.4.6 Concluding Remarks and Policy Implications

In order to observe the effects of fiscal deficit on the Omani balance of payments, this section of the chapter examines the existence of the “twin deficit” phenomenon in the national economy. Using annual data from the Omani economy and based on various regressions utilising OLS analysis and Granger bivariate causality test, a predominantly unidirectional causality from budget deficit to both current account and trade balance of the balance of payments, in both the short run and the long has

^{†††} “Overall balance consists of the capital account balance, (which in turn consists of three main accounts): official capital, oil sector capital and commercial banks' capital. The capital account is mainly influenced by movements of official capital, i.e. government loans. The overall balance, which shows the final result of the balance of payments, concludes the net balance of the main three previous balances, i.e. trade balance, current account balance and capital account balance.” (Al-Hejry 1997: 306)

been found. Based on these results, the empirical evidence, in the case of the Sultanate of Oman, supports the Keynesian proposition, and provides a sustained view that fiscal policy measures which are able to reduce budget deficit may also contribute in maintaining an external equilibrium. Moreover, based on the above discussion, together with the inverse influence of the debt service expenditure on growth described in Chapter 4, it would be an appropriate strategy to curb the growth of foreign public debt not only through controlling the fiscal deficit but also employing any fiscal surpluses to repay foreign public debt.

6.5 Conclusion

In this chapter, various econometric measurements have been utilized to shed light on the internal and external dimensions of fiscal balance in Oman. This was achieved through examining the currently adopted fiscal policies towards the budgetary deficit and public foreign debt. The chapter was divided into 3 main sections. The first section aimed at presenting stylized facts about fiscal deficit and public debt policies in Oman. The purpose of the second section was to study the internal dimension of the effects of budgetary deficit and public foreign debt. In this framework, the section has probed whether public foreign debt inflows and the expansionary fiscal policy cause GNP or GNP per capita, the contemporaneous relationship between the budgetary deficit and public foreign debt inflows and the growth ratio of GNP and GNP per capita was examined. The pairwise Granger causality test used to inspect the direction of causality between the changes of foreign public debt and budgetary deficit and GNP/GNP per capita growth did not provide any stand on the existence of any causal relationship running either from foreign public debt inflows and budgetary deficit to GNP/GNP per capita growth. Similarly, past values of economic growth have no any predictive ability in determining present values of foreign public debt inflows and budgetary deficit to GNP/GNP per capita growth.

The third section of the chapter considered the external dimension of the effects of the budgetary deficit. That is to say, this section tested the effects of fiscal deficit on

the Omani balance of payments and the existence of a “twin deficit” phenomenon in the national economy. Utilizing OLS analysis and the Granger bivariate causality test using vector autoregression (VAR), a predominantly unidirectional causality from budget deficit to both current account and trade balance of the balance of payments in the Sultanate’s economy was obtained. Based on these results, the empirical evidence, in the case of Oman, support the Keynesian proposition, and provides a sustained view of that fiscal policy measures which are able to reduce budget deficit, would also contribute in maintaining an external equilibrium. Furthermore, the chapter also showed that, based on the current findings, along with the negative effect of debt service expenditure on GDP/ non-oil GDP growth shown in Chapter 4, it would be a proper policy to control the growth of the foreign public debt through smoothing the growth of the fiscal deficit as well as employing any fiscal surpluses to repay the foreign public debt.

CHAPTER 7: DETERMINANTS OF TAX SHARE AND THE IMPACT OF TAXATION ON CAPITAL FLOW IN OMAN

7.1 Introduction

Prior to 1971, there were no integrated principals for public finance and government accounting. The first general state budget was produced in 1971. The development planning began late and the first Five-Year Development Plan was initiated in 1975. However, since the early years of the dawn of the blessed renaissance in the Sultanate, and with the objective of ensuring a sufficiency of public revenue, the possibility of introducing a corporation tax on businesses as well as imposing customs duties and fees has been suggested. Another objective was that, establishing a tax system would enable regular taxation, with the aim of ensuring that the government would be able to carry out a fiscal policy more effectively, along with increasing its level of public spending on vital infrastructure projects and reducing the gap between government expenditures and its low level of public revenues. The government since then has been making efforts to introduce a modern tax system on the one hand and exploring the possibility of granting national subsidies to encourage the private sector on the other.

The modern taxation system in the Sultanate of Oman was established principally as a result of the issuing of the Income Tax Decree in 1971, which was then replaced by the corporations Income Tax Law of 1981. Legislations and rules of taxation in the Sultanate are endorsed by Royal Decrees. However, in a few rare cases, ministerial decision initiates some of these rules; but in this case, a Royal Decree should be issued to settle the rule. The structure of taxes in the Sultanate of Oman consists of two main types, direct in the form of corporation income tax and some municipal taxes, and indirect tax, customs duties.

There is no personal income tax levied in the Sultanate yet. Tax on companies' net income is the most important tax in the Sultanate of Oman. It is based upon the Corporate Income Tax Law of 1981 and subsequent Royal and Ministerial Decrees. Taxable income includes business profit, interest, royalties and capital gains, and is computed on the net income arising in the Sultanate of Oman or deemed to have arisen in the Sultanate of Oman after deducting all ordinary expenses, such as expenditure incurred in producing the gross revenue, bad debts, auditors' fees, depreciation, head office expenses, sponsorship fees and certain donations. According to this law, taxable businesses are those that have a permanent establishment in the country, or have employees residing in the Sultanate of Oman (Info-Prod 1999).

As one of the most important redistribution tool, with major growth consequences, fiscal policy can tap in on a variety of financial resources such as direct and indirect taxation, duties and service charges, trade taxes and natural resource rents. Unless there are institutional mechanisms to help policy-makers, misallocation of these resources causes an inefficiency that can incur further consequences and public funds could be allocated to projects whose marginal returns is less than marginal cost of the funds. When distribution of tax incidence is not based on some efficiency criteria, the result could lead to the government overspending and running excessive deficits, especially when tax varies across activities due to the differential access of interest groups to the policymakers (Esfahani 2002: 11)

The Omani tax system still encounters too many serious and ongoing problems. Most of these in fact, relate primarily to the efficiency of the system and databases available. Another, as a personal point of view, can be attributed to the limited outturn, which could result from other factors such as the wide range of exemptions. As mentioned earlier in Chapter 3, in 1975 businesses wholly owned by Omanis, were granted many tax exemptions by the Royal Decree No. 21/1975 (1975). These exemptions then have increased in the last few years. It worth mentioning also that,

according to the latest amendments the corporation statutory tax rate has been reduced to only 12%.

Despite the risks of losing substantial revenues and of provoking a competitive response from neighbours, many countries do offer tax incentives to foreign direct investment (FDI) in such forms as tax holidays, accelerated depreciation allowances or investment tax credits. Although, there is a growing support for the idea that tax incentives can be effective in attracting FDI, there is also an awareness of the fact that neighboring countries may offer similar non-tax attractions. These countries could compete in offering tax incentives in a way which provides a benefit to the investor. The question which the country has to answer is whether the additional investment created by such incentives is really worth the revenue from these foreign investments that must have forgone without the incentives (Heady 2002: 13).

According to the above discussion, there are two questions which arise:

- 1 What is the potential of taxation policy in the Sultanate of Oman?
- 2 Are taxation policies, such as tax exemptions, tax holidays....etc, that has been approved in order to attract FDI effective in achieving their goal, particularly after the sharp cut in the statutory corporation tax rate from 50% to 12%?

The purpose of this chapter, therefore, is to answer these two enquiries through examining the taxation policies currently adopted. In the first section of this chapter the tax potential and tax effort in the Omani economy is examined. In the second section investigates the effect of taxation policies on FDI flows in the Sultanate of Oman is examined. The estimations in this section will be divided into two parts: theoretical in the first part and empirical in the second.

7.2 Tax Potential and Tax Effort in the Omani Economy

Taxation policy has always been an important instrument for enhancing public revenues. Consequently, the most important motivation for tax policy is the need to raise revenue. Extensive attention should be devoted to policies best suited to the promotion of economic development. The major focus of these efforts, is the search for desirable fiscal policies, with considerable stress being placed on the role of taxation as an instrument of economic development (Teera 2003: 1)

As mentioned earlier in this chapter, the role of taxation, as a financing source for the development process in the Omani economy is still modest. Unlike the current position, thanks to the improvement of the oil prices in the international market, in the 80s 90s era, public revenues were sufficient to sustain the increasing public expenditure. Therefore, the Sultanate should now work hard to improve its taxation system as soon as possible to be able to face the proximate time of approaching the reserves being exhausted.

Accordingly, top of the list means to support increases in government budget is tax revenue. The size of the tax revenue depends on the contributions (shares) that can be made by the total economic activity in the national economy. These activities or sectors are the determinants of tax revenue. However, not all the economic sectors are significant and positively relate to tax revenue as some of these activities can even, have a negative effect. Verifying these determinants can help fiscal policymakers to enhance the position of the economy's tax capacity In order to authenticate tax capacity determinants, the theory suggests more than one approach.

According to Stotsky and WoldeMariam (1997: 10), there are two major approaches usually used to determine tax effort. In its simplest form, these comparisons are based on differences in the ratio of taxes in a country to measures of the tax base, often GDP. This approach assumes, however, that the tax bases are a proper measure

of taxable capacity. On the other hand, a simple tax base, such as GDP, is not normally an accurate measure of taxable capacity, as not all taxes are linked explicitly to income, and the distribution of income and how income is earned. Another approach measures taxable capacity by regressing, the share of tax revenue in GDP ratio on explanatory variables that serve as proxies for possible tax bases and other factors that might affect a country's ability to increase tax revenues. The predicted tax ratio from the above-mentioned regression is considered as a measure of taxable capacity, and the regression coefficients can be interpreted as average effective rates on those bases, and tax effort can be then computed as a ratio of the actual to the predicted tax ratios.

By using the second approach, the aim of this section of the chapter is to inspect the determinants of tax revenue shares in addition to constructing an index of tax effort in the Omani economy.

7.2.1 The Mostly Used Variables as Determinants of Tax Shares

As the discussion of the literature review of determinants of tax shares in Chapter 2 demonstrated that the tax revenue share rises with the level of economic development. Also tax systems in developing countries reveal a positive relationship between per capita income and total tax revenue as well as income taxes. These findings, in fact, support the suggestion that as countries develop their tax bases develop more than proportionately to the growth in income (Teera 2003: 7).

Moreover, as the share of international trade in the economy is a measure of openness, import and export shares could be an important determinant of tax share. Certain features of international trade make it more amenable to taxation than domestic activities. In a developing country, the international trade sector is typically the most monetized sector of the economy. Entrance and exit to the country takes place in specified locations (Stotsky and Wolde-Mariam 1997: 11).

In the previous studies, the main variables used as determinants of the tax share in GDP are presumed to include the sectoral composition of value added, the overall level of industrial development, and the importance of international trade in the economy. The sectoral composition of value added is assumed to be an important influence on the tax share. This is because some sectors of the economy are more appropriate to taxation and generate taxable revenues. The mining share may be important as a sector that can generate large taxable income. On the other hand the share of agriculture in the economy may not be an important determinant of taxable capacity because the agriculture sector, mostly, does not generate large tax revenues. Moreover, small farmers are known to be difficult to tax while the share of manufacturing may be assumed to be significant. Per capita income is typically considered the best proxy for the overall level of development and economic structure sophistication. It is therefore, has explanatory power. (Eltony 2002: 5,6)

Based on the discussion above, the time series data from 1990 to 2002 obtained from several publications of the Ministry of National Economy in the Sultanate of Oman, have been utilized in a regression using OLS estimator as a method. The variables most used in the previous studies have been chosen as the best means, and that assumed to determine the share of tax to GDP in the Sultanate. It must also be emphasized that, since it was difficult to identify an accurate and appropriate deflator, the time series in nominal terms were used. According to the Ministry of National Economy in the Sultanate, an accurate General Consumer Price Index (GCPI) is not available. The use of an inappropriate deflator could contaminate the results. Additionally, the theoretical framework employed can easily provide room for variables relative to GDP without any additional requirements (Konstantinou 2004: 87).

Table 7.1 Results Obtained From Previous Studies

<i>Previous Studies:</i>	Chelliah, Baas, and Kelly (1975)	Tait, Gratz, and Eichengreen (1979)	Tanzi (1992)	Leuthold (1991)	Stotsky and Woldemariam (1997)
Variables					
<i>Agricultural Share</i>	-	Insignificant	-	-	-
<i>Mining share</i>	+	+			-
<i>Manufacturing Share</i>					
<i>Export Share</i>					+
<i>Import Share</i>			+		
<i>Per Capita Income</i>					Insignificant
<i>Non-mineral Export Share</i>	Insignificant	+			
<i>Non-export Income per Capita</i>					
<i>Foreign Debt Share</i>			+		
<i>Foreign Trade Share</i>				+	
<i>Sample Size</i>	47 LDCs	47 LDCs	83 LDCs	8 Sub-Saharan Countries	30 Sub-Saharan Countries
<i>Period</i>	1969-71	1972-76	1978-88	1973-81	1990-95
<i>Analysis Type</i>	(averages)	(averages)	(panel)	(panel)	(panel)

Notes: (-) Negative, significant; (+) Positive, significant; LDCs: Less Developed Countries

Source: Tohami, S. (1988: 6)

The results of the first regression indicated that export, foreign debt outstanding, and manufacturing shares were too insignificant and, accordingly, were dropped from the model. The final regressors were: the share of tax revenue to GDP (TAXREV), as a dependent Variable; per capita income (PCINCOME); the share of import to GDP (IMPORT); the share of agriculture to GDP and the share of mining to GDP (MIN), all as explanatory variables. Accordingly, the regression function will take the following form:

$$TAXREV = f(PCINCOME, IMPORT, AGRICUL, MIN) \quad (1/7)$$

The series were converted to their natural logarithm form, and the above-mentioned model according to the following OLS equation is:

$$TAXREV = \beta_1 + \beta_2 * PCINCOME + \beta_3 * IMPORT + \beta_4 * AGRICUL + \beta_5 * MIN + e \quad (2/7)$$

7.2.2 Determinants of Tax Share in Oman: The Empirical Results

As mentioned in Chapter 4, nonstationarity of time series data has often been regarded as a problem in empirical analysis. Therefore, working with nonstationary variables leads to spurious regression. Hence, results from such a regression can be meaningless or misleading. The Augmented Dickey-Fuller test was utilized to check for unit-roots in each series in the sample. From Table 7.2 the evidence is that most of the series are nonstationary. The null hypothesis of the presence of unit roots, accordingly, is not rejected.

Table 7.2: Empirical Result of Testing for Stationarity Using Augmented Dickey Fuller (ADF)

Series	Outputs of ADF Test
TAXREV	-4.082946***
PCINCOME	-1.443650
IMPORT	-1.751447
AGRICUL	-1.666550
MIN	-2.654306*

*, (***) Indicate statistical significant level of rejection of the null hypothesis of a unit root at the 10, (1) per cent.

Based on the earlier results, the next step was to check whether the nonstationary variables are cointegrated. As mentioned earlier in Chapter 4, the idea of cointegration implies that if there is a long-run relationship between two or more nonstationary variables, deviations from this long-run path are stationary. (Were 2001: 12)

A cointegration test was conducted to determine the existence of a long-run relationship between the variables. In fact the Engle and Granger (1987) two-step procedure for modelling the relationship between variables that were found to be cointegrated has recently received a great deal of attention. One of the benefits of this approach is that the long-run equilibrium relationship can be modelled by a

straightforward regression involving the levels of the variables. Furthermore, Holden and Thomson (1992: 26) stated that one of the reasons behind the attractiveness of this approach is that it reduces the number of coefficients to be estimated and so, reduces the problem of multicollinearity (Demirbas 1999: 9)

A test for the residuals - with no trend included - from the first regression was performed. The result was rejection of the null hypothesis that states no cointegration exists. The result of ADF test was (-4.90) at a level of 99% of significance.

According to the regression outputs, tax capacity in the Sultanate of Oman will take the following equation:

$$TAXREV = 4.723403 + 2.761591 * PCINCOME + .629268 * IMPORT + 1.903376 * AGRICUL - 1.393659 * MIN \quad (3/7)$$

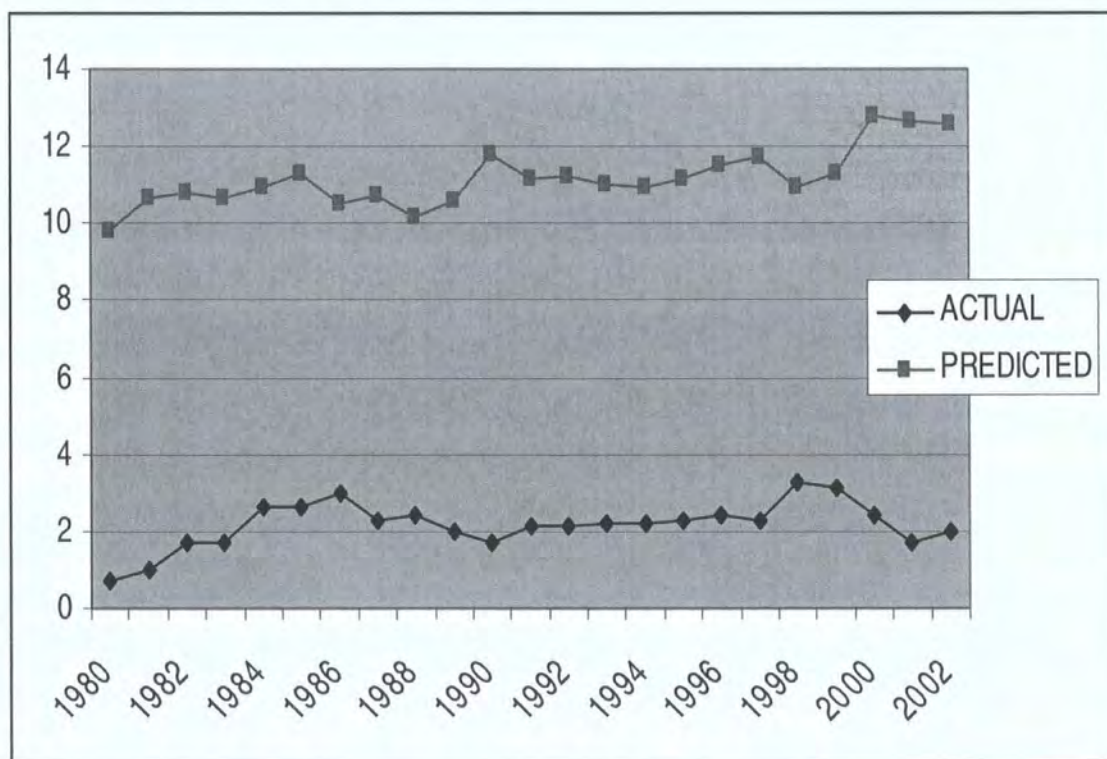
The outputs of the regression are presented in Table 7.3. As shown in the table, the results suggest that per capita income was found to be statistically significant and possess a positive sign, indicating that it has a high positive impact on the tax ratio. Imports and mining shares also positively relate to tax revenue with a statistical significant. Surprisingly, the agriculture share also positively relates to tax revenue. The mining share is significant and contrariwise relates to tax revenue. In fact, this behaviour of mining share was expected. The economy is heavily dependant on this sector. Moreover, oil production is wholly possessed by the government.

The next step was to count tax effort during the period. Table 7.4 shows that there was a gap between actual tax and potential tax. The gap is broad reflecting the high potential of taxation policy. Moreover, this can also give an indicator of existence of tax evasion and tax avoidance.

Table 7.3: Regression Results

Variable	C	PCINCOME	IMPORT	AGRICUL	MIN
Coefficient	4.723403	2.761591	0.629268	1.903376	-1.393659
t-Statistic	3.563520	4.642978	3.063533	4.487371	-5.157436
Probability	0.0022	0.0002	0.0067	0.0003	0.0001
R2	Adjusted R2	F Statistics	Durbin- Watson		
0.801342	0.757196	18.15202	1.940679		

Chart 7.1: The Potential of Taxation Policy



Source: Table 7.4

Table 7.4: Actual, Tax Potential and Tax Effort in Oman.

Year	Actual	Predicted	Tax Effort
1980	0.7	9.820	0.071
1981	1	10.641	0.094
1982	1.7	10.820	0.157
1983	1.7	10.641	0.160
1984	2.6	10.926	0.238
1985	2.6	11.274	0.231
1986	3	10.503	0.286
1987	2.3	10.761	0.214
1988	2.4	10.143	0.237
1989	2	10.569	0.189
1990	1.7	11.785	0.144
1991	2.1	11.135	0.189
1992	2.1	11.232	0.187
1993	2.2	10.990	0.200
1994	2.2	10.935	0.201
1995	2.3	11.160	0.206
1996	2.4	11.516	0.208
1997	2.3	11.713	0.196
1998	3.3	10.924	0.302
1999	3.1	11.295	0.274
2000	2.4	12.782	0.188
2001	1.7	12.664	0.134
2002	2	12.603	0.159

Source:

- Actual tax revenue: Central Bank of Oman, The Annual Report- Several Years
- Predicted tax and tax effort were counted from the regression output.

7.2.3 Policy Implications of Empirical Results for Oman

There are many developing countries which have different rates of corporate income tax for different sectors. Originally, this was a valuable policy when the government's role amounted to allocating and devising taxes without the need to improve revenue collection or income distribution. (Heady 2002: 8) Currently the taxation system in the Sultanate applies different income tax rates according to the percentage of Omani who participate and their level of taxable income. Many countries apply different tax rates of corporate income tax to companies of different size, which in fact has more justification than that of applying different rates for each sector for they principally designed to compensate for the disadvantages that small businesses suffer in terms of tax compliance costs and poorer access to capital markets. However, the experience suggests that this policy can alter competition between large and small firms, in addition to providing incentives for firms to split into smaller units, as a trick, to benefit from the lower taxes. Therefore, it would be better if there were simplified tax procedures and measures to improve capital markets in order to tackle these disadvantages more directly (Heady 2002: 8)

As stressed earlier in this study, both government and household savings aggregates are too low*. According to the IMF (1994: 70), although, the required increase in the rate of public savings should be derived fundamentally through a major reductions in public spending, given the magnitude of the measures needed appropriate increases public savings some tax increases will probably be required. For instance, applying corporate taxation to state enterprises, particularly those actually or potentially in competition with foreign suppliers or private sector companies paying taxes is reasonable. This would force the latter to be more efficient, as well as raise revenues. In addition, imposition of income taxes on high-income earners, as well as taxes on luxury consumer goods such as cars, expensive residential real estate and taxing properties according to their size and locality.

* See Chapter 3 for more details about this issue.

7.3 The Effect of Taxation Policies on FDI Flows in Oman

The purpose of this section is to examine the effect of taxation policies on FDI flows in Oman. The first part of the section will examine the issue theoretically. It will show the justifications for adopting such a policy, cite opposing views, suggest limitations on such a policy, and assess whether it is feasible. The second part examines the issue empirically by using OLS method to perform the regression.

7.3.1 Justifications of Offering Tax incentives in Oman

In addition to its important re-distributional function, a variety of policy objectives can be achieved through taxation, particularly in the case of income tax. While in general tax systems should be designed to be neutral, they may always be called upon to influence resource allocation. There are several arguments which can be made in support of this function in the cross-border investment context. This includes those concerns over international competitiveness, and perceived instances of market failure. As an example, an inefficiently low level of FDI may result in a given host country where there are positive externalities or beneficial effects from FDI that have not been taken into account by foreign companies when making their outbound investment decisions. Good examples of these benefits are where benefits through 'spill-over' accrue to the host country economy. The benefits of spillover could include new knowledge, production and process technologies by other host country firms, conferring general training and skills that could be employed elsewhere in the economy or generating demand for various factors of production (Clark 2002: 2).

Daly (1988: 159) stated that since the World War II, in many countries, the proliferation of tax measures designed to stimulate specific types of savings and investment has been one of the most important characteristics of tax policy. From the mid-1980s, measures included a wide range of incentives in the form of accelerated capital cost allowances, tax investment and saving. Although, many of these tax policies may have been introduced with good results, lack of uniformity in the tax

treatment of different investments still exists. This is mirrored in the fact that tax rates on income from new investments varied enormously, depending on points such as, the nature of the asset acquired, the industry in which it was used, the method by which the investment was financed, and the tax status of the saver supplying the funds. Consequently, governments in many countries have recently been reforming their tax systems.

According to Bond and Chennels (2000: 2-3), over the last twenty years, there has been a widespread trend towards lower corporate income tax rates. It can be said that in these years a most remarkable development in corporate taxation took place. For example, in their study, Bond and Chennels reported some figures for the seven countries that they focused on. (In this study we consider developments in the USA, Japan, the three large European countries of Germany, France and the UK - and the two smaller European countries, the Netherlands and Denmark), All seven countries have cut their headline corporate tax rates since 1979 and in some cases, quite substantially. The UK, for instance, reduced its tax rate from 52% to 35% between 1983 and 1986 as part of a major reform of corporate income tax, and has subsequently reduced its rate to 30%. Similarly, the USA reduced its federal corporate income tax rate from 46% to 34% as part of its 1986 Tax Reform Act. (although the rate was increased in 1993 to 35%). Likewise, many other countries have followed this policy and reduced their corporate tax rates over this period. In 1987, Japan reduced its corporate income tax rate to 43.3% and in 1999 to 30%. This policy was also followed by France and Germany. France reduced its corporate income tax rate from 50% to 33.3% between 1985 and 1993, and so did Germany, from 56% to 50% in 1990, and then from 50% to 45% in 1994. It should be mentioned, however, that the effect of this reduction has been partially reversed by significant surcharges introduced in 1995 and 1997. Ireland, likewise, introduced a 10% rate of corporate income tax for manufacturing business in 1981. And the

Scandinavian countries (Sweden, Norway and Finland), cut their rates to 28% during the 1990s (Bond and Chennels 2000).

Similar reforms occurred, in developing countries including the MENA and GCC countries. In order to boost the attractiveness of their economies to attract foreign investment to foster growth, many such countries throughout the world used corporate tax incentives for foreign direct investment. (Mintz and Tsiopoulos 1994: 233)

To increase their share of foreign direct investment (FDI), these countries typically used various preferential tax policies to be competitive, as well as offering tax holidays, which have been especially prevalent in the 1980s. For example, they offer a new foreign investor a low-tax inducement for a qualifying period on the presumption that the company needs time to establish good levels of profitability. Many developing countries have also been incorporating new tax policies for multinationals businesses, such as low or no-withholding taxes on income payments to non-residents, or low rates applied to income earned by holding companies and tax holidays incentives in order to establish headquarters, or financial and trading operations within their jurisdictions. (Mintz 2004: 1)

However, some theoretical and empirical studies suggest that these incentives are not necessarily efficient. According to Gugl and Zodrow (2004: 1-2), there are several studies which suggest the inefficiency of such policies while others still conclude that these policies are suitable. This gives a picture of non-uniformity. As examples: non-uniform investment incentives that apply only to particular types of capital assets or firms and thus only to certain business sectors may inefficiently distort the allocation of productive resources. The econometric evidence on the effectiveness of investment incentives in attracting investment is mixed. The current consensus appears to be that, holding other factors constant, investment does in fact respond

positively to reductions in the cost of capital, such as those associated with tax incentives (Cummins, Hassett and Hubbard, 1997; Hassett and Hubbard, 1997)[†].

In their reviews, of empirical studies of the impacts of taxes on foreign direct investment, Gordon and Hines (2002), de Mooij and Ederveen (2003) conclude that the empirical evidence suggests an elasticity of aggregate foreign direct investment with respect to effective host country tax rates of roughly 0.6-0.7 in absolute value, with the most recent research characterized by substantially larger elasticity.

Nevertheless, other economists argue that macroeconomic factors are by far the primary determinant of investment and that tax factors such as investment incentives play a relatively minor role Chirinko (1987) with investment much less sensitive to cost of capital factors than what has been suggested above (Chirinko, et al. 1999)

Clark (2002) states that,

“Generally the considerations raised in the report can be seen on balance as cautionary over the introduction of special tax incentives, with simplification and base protection advantages identified with reducing the statutory corporate income tax rate as a means to lower the host country tax burden. However, the report stops short of policy recommendations, recognising that decisions over the use of incentives will depend on the specific country situation, and rest in the sovereign domain of national governments” (P.2)

Some observers such as Obwona (2001: 47), maintains that the new attention given by the governments of developing countries to the potential for private FDI is motivated by the need and desire to extend the market-price system and the private sector as well as to mitigate their external debt problem by attracting more private foreign investment. If a country experiences a resource or savings gap, it will also be confronted by a foreign exchange gap that will have to be filled with an inflow of foreign capital. Macroeconomically, an internal imbalance resource gap, for instance, which happens, when government expenditure plus private investment exceed government revenue and private savings, can spill over into an external imbalance of

[†] Cited in Gugl and Zodrow (2004)

imports greater than exports, and therefore represent a foreign exchange gap. Consequently, international financial intermediation is then required to fill the foreign exchange gap. Some of the available solutions are loans from multilateral lending agencies and commercial banks, or by private foreign investment. However, the former sources of foreign capital are flat or declining, and hence FDI has considerable potential. As is well known, a country that faces a perfectly elastic supply of internationally mobile capital should avoid using source-based taxes on capital income. In the long- run, imposing such a tax will merely drive capital out of the taxing country until the after-tax rate of return returns to the internationally determined level. This is another strong reason for investment incentives, and the need to attract highly mobile international capital as well as to increase the returns to local factors and stimulate growth and technological innovation (Gugl and Zodrow 2004: 5).

Indeed, these opinions are also supported by the following facts:

- Although there are some relative advantages of FDI over foreign loans from the stance of the balance of payments adjustment, equity investment necessitates payments only when it earns a profit, but debt requires payments irrespective of the position of the economy;
- While the terms of debt service are set in international markets, the host country can control payments;
- Earnings from FDI are frequently reinvested and only a part repatriated in contrast to the need of debt service which can form a great burden on a country's economy;

-
- Finally, with FDI, both commercial risk and the exchange rate risk are passed on to the investor rather than having to be borne by the host government (Obwona 2001: 47).

7.3.2 The Effect of Tax Rate on FDI Flows

Tax policies affect the volume and location of FDI. Gordon and Hines (2002)[‡] stated that this occurs since higher tax rates reduce “after-tax returns”, thus reducing the urge to use investment funds. Both in academic and operational circles, the idea that FDI reacts to corporate profit taxation is widely shared. Nonetheless, empirical and theoretical reasons could justify this impact as being empirically unnoticeable and even misleading, for several reasons:

- The use of transfer pricing and ultra-firm debt contracting encourages firms to shift profits where taxation is the lowest, consequently disconnecting the location of profit and production;
- Location decisions depend on the mixture of a taxation and public goods proviso that is obtainable in host countries. This can soften the link between the tax level and the amount of FDI located in a country;
- The impact of tax differentials on FDI location decisions may not compare to structural determinants like proximity to final markets and competition between goods markets and labour;
- A higher tax rate may cause a higher pre-tax return in a general equilibrium framework with no measurable influence on post-tax return (Fontagne and Lahreche-Revil 2000: 3).

According to Gordon et al. (2004: 4), the economic theory suggests that, since the net influences of personal income tax rates are less clear, a particular focus on the corporate tax rate is required. In their study, Gordon, et al. (2004) found,

[‡] Cited in Fontagne and Lahreche-Revil (2000: 3)

“a significant effect of corporate tax rates on economic growth, even after controlling for other determinants/covariates of economic growth. The estimated effect is quite similar in the cross-sectional and time-series estimates, and with or without fixed effects in the time-series specification. Any inference that this effect of the corporate tax rate is due to effects on entrepreneurial activity of course is speculative. Consistent with this interpretation, however, we provide evidence that a low corporate rate leads to a fall in personal income tax revenue, in spite of the higher growth rate. We presume this occurs because people reduce their time as employees, where income is subject to the personal tax, and instead become entrepreneurs, generating corporate tax revenue and perhaps personal tax losses” (P. 4)

Although tax policy is not the only determinant of multinational decisions and what is called the “Race to the Bottom”, it can still have some impact on FDI flows. However, some scholars and economists have found a negative relationship between corporate tax rates and certain multinational activities. As examples, Altshuler and Newlon (2001) examined the impact of tax rates on U.S. manufacturing investment in 1984 and 1992. Their conclusion was that tax rates have a significant impact on multinational investments, and this relationship becomes stronger over time (elasticity of 1.5 in 1984 and 3 in 1992). In contrast, Devereux and Griffith (1998) found that average effective tax rates are a determinant of FDI decisions. Moreover, in a recent and comprehensive study, Mutti (2003) found that corporate tax rates have a significant impact on manufacturing and the decisions of multinationals. According to him, a decline of 1% in the cost of capital leads to a 3% increase in the production of multinational corporations (MNC). (Jensen 2005: 7)

However, according to Jensen (2005: 7), “The catch is that this strong relationship does not hold for a market seeking FDI or FDI in high-income countries. As Mutti (2003:5) stated, “Such a high response does not apply if the output is destined for local markets or if the country has high per capita income.”

In brief, according to these views, the theory contains mixed opinions and conclusions. However, as will be discussed later in this chapter, most of the latest

studies trend to favour the idea that the effect of tax rates, as determinants of FDI volume, is either weak, or absent.

7.3.3 Taxation Policies Adopted Towards FDI in Oman

7.3.3.1 Policies Approved and FDI Volume in Oman

The promotion of increased efficiency through competition, both domestically and internationally, with a view to providing a sounder basis for sustainable and real employment-creating economic growth, has been the goal of globalization policy. The prospect of global competition requires firms in all GCC countries - including the Sultanate of Oman- to utilize all of their available resources in order to survive and succeed in the global economy. According to the political rhetoric and recent economic development plans in Gulf Cooperation Countries, the future prospects of social, economic, and political development of the country are perceived as being eventually related to its ability in attracting more FDI. The new legal business framework is the most obvious milestone in the development of the AGCC and Sultanate of Oman business environment. There have been continuous legal reforms in these countries since the late 1990s, as well as regulations governing the status of foreign firms, laws to protect intellectual property rights, liberalisation of their FDI policies and commercial laws. The number of activities in which FDI is barred or restricted has been noticeably reduced, especially in the manufacturing sector as well as in the development of natural resources and services. Moreover, except for few restrictions, the legal environment has become favourable to foreign investors. These include more liberal entry, fewer performance requirements, more incentives, and more guarantees and protection for investors (Mellahi; et al.2003: 2).

According to the above-mentioned policies that have been adopted throughout the world, the government of the Sultanate of Oman has followed the same strategies to attract as much FDI as possible. Among the most important incentives offered to

achieve this goal are tax incentives. Moreover, as stated earlier in this study, the Omani public budget started experiencing chronic budgetary deficits from 1982 onwards. Though even in the 1970s there had been deficiencies in some years.

According to Mellahi, et al. (2003: 3,4), the budgetary surplus from oil revenues in the 1970s and 1980s enabled the Sultanate to finance local development programmes without the input of foreign capital. There was no willingness to attract foreign capital and this was institutionalised via laws that discouraged foreign investment through excessive screening and sectoral restrictions and barriers. In both the 1974 and 1978 laws that govern investment in Oman priority was given to local investors with discrimination against foreign investors. However, because the catalyst for this change of direction had been the drop in oil prices during the 1990s, in addition to the pressure from the World Bank and the International Monetary Fund (IMF), the Sultanate of Oman sought to integrate its economy into the global economy and has now edged towards seeking foreign investment. As stated earlier, the sharp fall in oil prices caused the external trade balance turn into deficit. In an effort to raise the small level of FDI inflows, the Sultanate has embarked upon an investment-liberalisation tropism. This path has led the country to broaden open policies in several areas such as in its industrial and commercial sectors, so as to permit forms of FDI entry previously considered less beneficial.

A number of policies since then have been adopted to achieve this goal such as:

- Privatisation;
- Lowering public investment;
- Embarking on a strategy to encourage foreign investment (Mellahi, et al. 2003: 3, 4 and 11).

Moreover, the Sultanate of Oman can no longer insulate itself from globalisation and without lowering tariffs and undertaking other obligations implicit in the WTO

membership, it cannot easily participate world trade. Consequently, the country has significantly changed its attitude towards FDI and foreign investment barriers have given way to active promotion of FDI.

Since then the Sultanate has adopted a range of policies as part of a general strategy to attract foreign direct investment (FDI). The most important of which is tax rate policy.

Table 7.5: A Comparison of the Main Policies Governing FDI in GCC Countries

Regulations	Bahrain	Kuwait	Oman	Qatar	KSA	UAE
Limitations on the share of foreign investor	Nationals have majority share in selected industries. Offshore banks can have 100% share	Nationals have to hold 51% in selected activities ; foreigners can have more than 51% with special approval	Foreigners can have up to 100% only in selected projects	Nationals have to hold 51% of the shares in JVs. Foreign investors can have up to 100% in selected sectors	Foreign investors can have up to 100% share in many sectors; a negative list will include sectors prohibited for FDI.	In free zones foreigners can have 100% shares as well as in some projects. Generally nationals should hold 51% or more of the shares.
Management	No government regulations	No government regulations	No government regulations	No government regulations	The general manager must be national	No government regulations
Local Content	No regulations but local value-added should not be less than 40% to enjoy 100% tax exemption.					
Repatriation	Foreign investors in all GCC countries can remit abroad all profits as well as all funds received					
Foreign Investment Law	Legislative Decree No13 of 1991	Law No.15 of 1990 and No.68 of 1980	Royal decree No. 104/94 Foreign Investment Law	Foreign Investment Law No.13 of 2000	Foreign Investment Law of April 2000	Commercial Companies Law, Federal law 8, 1984 and amendments JAFZA Dubai Law 9, 1992
Legal System	In all the GCC states, the Sharia (Islamic Law) constitute the prime law. However, most of the laws relevant to foreign investment are contained in legislation enacted by the legislative authority. Most of this legislation is based on the European models, often French, Patterned after the Egyptian legislation. Sharia principles are generally applied only in matters affecting the personal status of Muslims. the GCC states introduced judicial and legal system to deal with business disputes outside the Sharia court system.					

Source: Mellahi, et al. (2003: 14)

Table 7.6 shows foreign investment in the Sultanate of Oman by the end of 2002. From the table, the sectoral distributions of FDI in the Sultanate are concentrated in the commerce sectors. This sector alone has attracted the lion's share of foreign investments. There are 424 companies engaged in the commercial sector, while those engaged in industrial activities number no more than 88 businesses. The remaining insignificant part is distributed among services, agriculture, construction, mining, and transport and contracting works

Table 7.6: Foreign Investment in Oman by the end of 2002

Sector	Total Investment	The Omani Contribution	Foreign Contribution	FI/Tot. Inv%	Total number of Companies
Commerce	98,074,971	48,734,153	49,340,818	50%	424
Industrial	51,307,277	32,061,020	19,246,257	35%	88
Agricultural	450,000	265,500	184,500	41%	3
Financial	156,094,703	113,744,522	42,250,181	27%	20
Mining	5,000,000	4,950,000	50,000	1%	1
Transport & Contractor	40,282,483	20,216,073	20,066,410	50%	190
Tourism & Hotels	22,853,794	15,515,526	7,338,268	32%	9
Services	88,714,596	49,454,412	39,260,184	44%	90
Oil & Gas	200,850,000	103,207,500	97,643,500	48%	2
Total	663,627,824	388,148,706	275,380,118	41%	827

Note:

This does not include the wholly owned Omani Companies (100%)

A sum of 200,850,000 RO was added representing PDO and LNG

Source: OCIPED.

Moreover, net flows of foreign direct investment to the country are as yet modest. See Table 7.7 below.

Table 7.7: Net FDI Flows to GDP

Year	GDP (Mln.RO)	FDI Net Flows to GDP (%)
1980	1,619.0	1.65
1981	1,900.9	0.86
1982	2,121.1	2.41
1983	2,395.1	1.95
1984	2,728.1	1.79
1985	3,124.2	1.61
1986	3,191.1	1.92
1987	3,063.8	0.45
1988	3,224.5	1.21
1989	3,320.7	1.34
1990	3,599.0	1.35
1991	3,816.3	1.33
1992	4,140.5	0.92
1993	4,394.9	1.27
1994	4,563.9	0.68
1995	4,784.3	0.38
1996	4,922.8	0.40
1997	5,226.9	0.41
1998	5,368.2	0.72
1999	5,355.6	0.26
2000	5,649.5	0.08
2001	6,073.6	0.42
2002	6,213.8	0.12

Source:

1. GDP: MONE., Yearly Statistical Book, 2004.
2. FDI net flows: World Bank Database, International Development Indicators.

7.3.3.2 Size of Tax Exemptions, Incentives and Holidays in Oman

According to the Law of Income Tax on Companies- the Second Schedule- OCCI (2000), states that, in accordance with the provisions of Article 52, tax on income shall be computed at the rates presented in Table 7.8:

Table 7.8: Corporate Tax Rates.

Taxable income (RO)	Rate (%)
More than 500,000	50
More than 400,000 to 500,000	45
More than 300,000 to 400,000	40
More than 200,000 to 300,000	35
More than 100,000 to 200,000	30
More than 75,000 to 100,000	25
More than 55,000 to 75,000	20
More than 35,000 to 55,000	15
More than 18,000 to 35,000	10
More than 5,000 to 18000	5
5,000 and less	Nil

Source: Oman Chamber of Commerce and Industry, (2000), the Law of Income Tax on Companies.

Corporate tax holiday are granted for up to 10 years. Soft loans with low interest rates and easy pay back period, exemption from customs duty on imports of plant and equipment, full repatriation of capital, net profits and royalties, and finally, relief from customs duty on raw materials are granted tax exemption for up to 10 years.

According to the Law of Income Tax on Companies- the Second Schedule- Paragraph 3, the tax rate for Omani companies wholly owned by Omanis shall be fixed as follows:

- First RO 30,000/- of the taxable income - exempted from tax
- Taxable income in excess of the above -12%

In the case of mixed Omani companies:

(a) Joint-stock companies: The tax rates shall be fixed as mentioned in Paragraph 3;

(b) Other companies:

1. Companies in which Omanis hold 51% and above of their capitals, the tax rate shall be fixed as mentioned in Paragraph 3 of this Schedule;

2. Companies in which Omanis hold less than 51% of their capitals, the tax rates shall be fixed as mentioned below:

- First RO 30,000/- of the taxable income - exempted from tax;
- Next RO 100,000/- of the taxable income - 15%;
- Next RO 150,000/-of the taxable income - 20%;
- Taxation in excess of the above – 25%.

Royal Decree 87/96 (1996) amended the Law of Income Tax on Companies in October 1996, and the Law of Profits on Tax on Commercial and Industrial Establishments, which is applicable to Omani companies in which there are foreign participants, was amended by Royal Decree 89/96(1996) The amendments substantially reduced the tax rates applicable to Omani mixed public joint stock companies, as follows:

1. In case of at least 51 percent of the share capital of the mixed entity is held by Omani nationals:

- The first RO 30,000, which was taxed approximately between 0-10 %, becomes exempted;
- The following RO 30,000, which was taxed up to 30% after the amendment is taxed at only 5%;
- Above this, what was previously taxed up to 50% is now taxed at 7.5% after the amendments.

2. Companies in which there is foreign participation of not more than 90 percent, the amendments provide the following tax rates:

- The first RO 30,000, which was taxed at between 0- 10% becomes exempted;
- The following RO 30,000, which was taxed up to 25%, after the amendments is taxed at only 15%;
- The following RO 150,000, which was taxed up to 30%, after the amendments is taxed at only 20%;
- Above this was taxed up to 50%, while after it is taxed 25% after the amendments.

The Royal Decree No. 89/96 (1996) amended the income tax rate on commercial and industrial establishments, and is applicable to Omani companies in which there is no foreign participation. The amendments also provide that, under certain circumstances, those tax rates will continue to apply to the entity even if a branch of a foreign company or a mixed Omani company established under the Foreign Business and Capital Investment Law holds some of the shares. Moreover, the above-mentioned amendments also granted a tax exemptions to businesses owned or used by Omani nationals. To be eligible for these exemptions, the entity must be engaged in certain sectors of business activity or organized under the Law on the Organization and Encouragement of Industry, and the exemptions are applicable for five years from the date production commences. Furthermore, the exemption period can be renewed for an additional period of five years. (Info-Prod 1999)

7.3.4 The Effect of Tax Incentives on FDI Flows in Oman

The study will now examine the effect of the tax incentive and exemption policies applicable in the Sultanate in order to attract more flows of FDI. The aim is to investigate empirically to what extent these tax policies are achieving their goals.

7.3.4.1 The Utilized Variables

The decision by a foreign investor in a given country depends on a wide range of factors in the host country. Among these are: adequacy of infrastructure and support, facilities, market size, trade policies and other policies that affect macroeconomic stability such as economic growth and the level of development and political stability. The importance attached to each of these factors depends on the type of investment and the motivations or strategy of the investor. (Obwona 2001: 62)

Jensen (2005: 8) states that, “Some scholars argue that average statutory tax rates (the published corporate tax rates) are a reliable source of multinational taxation levels. Even though multinationals often negotiate lower levels of taxation, statutory tax rates provide the status ... from which taxes are negotiated. Moreover, according to Mutti (2003), these statutory tax rates influence the jurisdiction under which a firm declares its taxable income.”

Rahman (2004: 15, 16) stated that in previous studies, conventional determinants of FDI inflows normally included variables related to the level and direction of activity in the host economy, the degree of macroeconomic stability and openness of the economy, trade volume, and the situation regarding its internal and external balances. Market size hypothesis stipulates that FDI is a function of the market size of the host. The size of a country's market captures demand and scale effects. If the host country market develops more quickly than their home country markets, the host country market becomes more attractive and the home country's firms become more willing to enter the host country, and hence, the growth rate has an effect (Davidson 1980; Moore 1993; Braunerhjelm and Svensson 1996).

Moreover, it is worth noticing that according to Jensen (2005: 13), many scholars and researchers utilize AR1 corrections as an alternative tool to lagged dependent variables approaches. These approaches test the same theoretical models, particularly

since both AR1 corrections and the lagged dependent variable estimate the OLS regressions with a lagged value of the dependent variable. The difference is methodological not substantial.

To examine the impact of corporate taxation rates on FDI inflows, Jensen (2005: 11), used a set of theoretically informed control variables derived from a number of empirical studies on the determinants of FDI inflows. Accordingly, the impact of corporate taxation rates on FDI inflows can be measured by using the following model:

$$FDIFLO = f(GDP, GDPGRO, TAX, GOVCON, GDPPC, TRADE) \quad (4/7)$$

Where FDIFLO denotes FDI net inflows, GDP is gross domestic product, GDPGRO is the annual growth of gross domestic product, TAX is statutory tax rate, GOVCON is government consumption, GDPPC is per capita gross domestic product and finally TRADE indicates the volume of trade counted as export + import / GDP.

The series were transformed to their natural logarithm form and OLS estimator was used to measure the above-mentioned model according to the following OLS equation:

$$FDIFLO = \beta_1 + \beta_2 * GDP + \beta_3 * GDPGRO + \beta_4 * TAX + \beta_5 * GOVCON + \beta_6 * GDPPC + \beta_7 * TRADE + e \quad (5/7)$$

7.3.4.2 Data and the Empirical Results

A sample of annual observations covering the period between 1980 and 2002 was employed. Except for those on net foreign direct investment and statutory tax rates which were not available and had to be obtained from the World Bank (International Development Indicators) and the World Tax Database- Office of Tax Policy Research (OTPR) at the University of Michigan, respectively- all series were

collected from the Ministry of National Economy and Central Bank of Oman Publications.

As mentioned earlier, prior to running a regression, a test for unit must be performed. From Table 7.9 evidence emerges that two of the series -TRADE and TAX- are nonstationary. The null hypothesis of the presence of unit root, accordingly, is not rejected.

Table 7.9: Empirical Result of Testing for Stationarity Using Augmented Dickey Fuller (ADF)

Series	Outputs of ADF Test
FDIFLO	-0.587516
GDP	-1.691315
GDPGRO	-1.622370
TAX	2.759054*
GOVCON	-2.042965
GDPPC	-2.555488
TRADE	-1.956656

* Indicates statistical significant level of rejection of the null hypothesis of a unit root at the 10 per cent.

A test for the residuals- with no trend included- from the first regression was performed. The result was rejection of the null hypothesis that states no cointegration exists. The result of ADF test was (-3.47) at a level of 5%.

In accordance with the above mentioned discussion, the regression was performed and the results are outlined in Table 7.10

Table 7.10: Regression Results

Variable	C	GDP	GDPGRO	TAX	GOVCON	GDPPC	TRADE
Coefficient	26.844	-9.91	0.08	0.67	6.83	6.44	3.52
t-Statistic	5.11	-5.29	0.30	2.35	3.47	1.93	2.87
Probability	0.000	0.000	0.770	0.040	0.006	0.082	0.016
R2	Adjusted R2		F Statistics		Durbin-Watson		
0.87	0.78		9.62		2.30		

The results obtained from the regression were consistent and robust. Coefficients were mostly significant and mostly possessed the expected signs. Except for GDP and GDP growth (GDPGRO), all variables were as expected, positively and significantly related to FDI net inflows. Surprisingly, the relationship between GDP and FDI is negative and significant, while GDP growth (GDPGRO) turned to be non-significant. As expected, the empirical results suggest that tax rates relate positively to FDI net inflows. These results are, in fact, consistent with other results obtained in many other studies such as those of Mutti (2003) and Jensen (2005).

Jensen (2005) stated that the most important result he found confirmed the absence of the relationship between levels of corporate taxation and FDI inflows.

Accordingly, this suggests that the foreign investor does not necessarily respond to tax incentives being offered, and that in addition to those mentioned here, there are other determinants which lie behind the deterioration of FDI inflows. However, discussing such an issue is beyond the scope of this study. As an example, Mellahi (2003), examined the key determinants for FDI in the Sultanate of Oman. This study revealed that political stability and economic stability were the two top determinants of FDI in the Sultanate of Oman, and that the Sultanate needs to determine the country of origin of the targeted investors and match the incentives offered with the needs and wants of these investors and to promote these motives accordingly. "This finding on the minor role of taxation in FDI decisions is buttressed by numerous surveys of multinationals that confirm this limited role of tax policy in determining location decisions. These studies show that tax policy has very little impact on FDI decisions." (Jensen 2005: 6) Consequently, it can be argued that low corporate income tax rates deserve to be revised.

7.4 Conclusion

This chapter examined two of the most important fiscal issues in the Omani economy; firstly, the potential of taxation policy, and the reasons behind the low tax revenue, as a share of GDP. Secondly, the efficiency of the wide range of tax incentives and tax cuts being granted in the Sultanate of Oman, and the effect of taxation policies on FDI flows, from two both a theoretical and an empirical dimensions.

The regression results of the first issue show that per capita income is statistically significant and possesses a positive sign. This indicates that it has a high positive impact on the tax ratio in the Sultanate of Oman. Surprisingly, the agriculture share positively relates to tax revenue. As expected, the mining share significantly and inversely relates to tax revenue. This is because the economy is heavily dependant on this sector. Moreover, oil production is wholly possessed by the government. The import and mining shares also positively relate to tax revenue with a statistical significant.

Accordingly, tax effort during the period from 1980 -2002 was counted. The result shows that there is a wide gap between actual and potential tax revenues. This gap reflects the high potential of taxation policy. However, this can also indicate the existence of tax evasion and tax avoidance.

The second section, as mentioned above, considers the incentives and tax cuts being granted. The theoretical part shows the justifications of adopting such a policy, the contrasting views, of the extent to which such a policy is effective, and whether it is feasible. Although, there is growing support for the idea that tax incentives can be effective in attracting FDI, it is also clear that other countries may offer similar non-tax attractions. Countries could compete in offering tax incentives in a way which could provide benefits to the investor. The question that policymakers in the

Sultanate of Oman have to answer is whether the additional investment created by such incentives is really worth the revenue forgone from investments that would have been gained without the incentives

The second part of the section examined the issue empirically, by employing a sample utilizing a model and the OLS method to perform the regression. The results were consistent and robust. All coefficients were significant and mostly possessed the expected signs. Most variables were as expected, positively and significantly related to FDI net inflows. Unexpectedly, the relationship between GDP and FDI net inflows was negative and significant. The most important conclusion is that the empirical results suggest that tax rates positively relate to FDI net inflows.

In fact, the positive relationship between tax rates and FDI inflows means that foreign investor does not necessarily respond to tax incentives being offered, and that, there are in addition to those incentives mentioned, other determinants which lay behind the deterioration of FDI inflows. However, discussing such an issue is beyond the scope of this study. As an example from previous studies, the current study's results are consistent with those of Jensen (2005) and Mellahi (2003). The latter revealed that political stability and economic stability were the two top determinants of FDI in the Sultanate of Oman, and that the Sultanate needs to determine the country of origin of the targeted investors and match the incentives offered with the needs and wants of these investors and to promote these motives accordingly. These results on the insignificant role of taxation in attracting FDI confirm the limited role of tax policy in determining location decisions, and that tax policy has very little impact on FDI decisions. Accordingly, it can be argued that the low corporate income tax rates deserve a revision.

CHAPTER 8: CONCLUSION

8.1 Setting of the Issue

Mercantilists had called for economic freedom where the state did not intervene in the society's economic affairs, while the classic economists had argued that the state should play a secondary role in the economic activities, leaving the market's internal mechanisms to regulate the economy. However, the Great Depression in the 1930s proved this type of thinking incorrect and the state intervention has been adopted ever since. It is true that as early as the 15th century, starting from Keynes up to the modern economic thinkers, there is an agreement that state economic policies are essential for maintaining economic balance and equilibrium, and hence, it can be said that the state's calculated intervention in economy is an issue accepted by researchers. The concept of economic planning had emerged at this stage and its significance in facing the 'economic cycles' stressed. To fulfil the overall goals of the economy and to achieve its full potential, the state has to take the decision of economic planning in production, distribution and national economic sectors.

Through adopting national economic and fiscal planning, numerous countries have achieved significant development and growth rate in their public and private sector. However, success in planning has a number of conditions, the most important of which is adherence to the implementation of the outlined plans. Moreover, there is a need for constant follow-up procedures for detection of diversions from the original plan. Furthermore, there is a need to evaluate the plans and their degree of success in improving economic variables such as gross national income, savings and investment. In addition, plans and policies had to be modified in such a way that they cope with the economy's current situation.

Based on the above, a state general budget emerges as an essential framework and tool in implementing fiscal planning. Thus, the fiscal policy goals should comply

with the goals of the economic plan and this is applicable to other economic policies such as the monetary and commercial policies. Again, proper implementation of these policies should guarantee better results and negative diversion in the plan execution process should be avoided or reduced, by the adoption of follow-up and control methods. Generally, it can be argued that although many of developing countries adopted economic planning, they still suffer from several unending problems due to their adoption of inappropriate fiscal policies. Good examples of the most troublesome of these problems are a massive public debt, chronic fiscal imbalances....etc.

The economic planning approach in Oman started in 1976; with the beginning of successive five-year plans first began. Since that time, a high level of investment in infrastructure and social services has been achieved. Nonetheless, by having a look at the economic indicators in the overall economy or in certain sectors, definite significant observations can be concluded: indicators do not reflect the ambitious objectives outlined in the original development plans. For example, the surplus of 1.5% of GDP in the state general budget in 1981 which turned into a chronic deficit in spite of the huge increase in the price of crude oil; the significant rise in the level of public external debt; the deterioration in gross national savings as a ratio of GDP from 38% in 1981 to 21% in 2003; and a worsening in the public capital formation, which diminished gradually from 15% to become 10% by the end of 2003. These figures undoubtedly illustrate the existing disequilibrium and intensify a number of policy challenges for the Omani economy in an uncertain oil market position, particularly where oil represent 40% of GDP, 75% of budgetary revenue and 92% of exports. There is the additional uncertainty concerning oil reserves which are expected to last less than 17 years. The recent deterioration in the daily production of crude oil from 906 million barrels to less than 700 million barrels adds yet, another dimension to the existing fiscal challenges that face the policymakers in the Sultanate of Oman.

As fiscal policy is at the top of the economic policies and methods which some researchers hold responsible for a range of economic successes and failures. Moreover, the Omani state budget has been suffering from structural and chronic deficit coupled with deterioration in savings and investment rates and a high level of public debt. Furthermore, Oman is in urgent need of solving the problems of economic planning due to resources scarcity, the short age of oil reserves and production capacity and where finally there is an urgent need to harmonise policies in the Customs Union of the GCC countries.

investigate to what extent the fiscal policies in the Sultanate of Oman can play a positive role, as fiscal instruments in attaining the targets of the fiscal planning that were adopted in the different five-year plans in the Sultanate of Oman and to what extent could they contribute to the accomplishment of the planned rates of economic growth in the execution stage of the five-year plans are in fact, a necessity. This study has outlined the role of the fiscal policies in achieving the economic planning's goals. Secondly, it identifies the positive/ negative diversions in the execution of economic planning and the factors behind these diversions and shows the positive/ negative impact of these diversions. Thirdly, it has examined the impact of these policies on economic growth. Finally, it suggests appropriate solutions and the possibilities of reform in a way that could increase the efficiency and effectiveness of the economic planning. The study focus has been on two areas which the researcher presumes may affect the role of fiscal policies in the performance of the economic planning in the Sultanate of Oman: (i) visible or explicit concerns such as the negative diversions in the execution stage of the process of the fiscal planning; (ii) invisible or implicit causes such as the contradiction between the fiscal policies adopted and economic growth in the long run.

The two preceding points can be illustrated by asking two questions. Have the fiscal policies in Oman succeeded in adhering to the economic plans at the execution stage enough to act as efficient tools in this stage to declare that the economic planning in

Oman has accomplished its targets? Secondly, have fiscal policies caused a positive / negative impact on the economic growth in the Omani economy?

8.2 Main Findings

Fiscal Policy Issues

The study has highlighted the significant role and the middle way of government intervention, the meaning, mechanism and importance of fiscal policy, in addition to considering other issues that can affect efficiency. Fiscal policy has been assumed to embrace the use of public expenditure and revenue by government in order to affect the rate of employment and achieve stability in the economy in its efforts to improve the national wealth, while fiscal instruments are those certain financial procedures adopted by government to achieve the objectives of fiscal policy such as planned deficit and borrowing programmes. The study has also shown that the intensive role of government in the economy dictated a wide usage of fiscal policy instruments. Depending on a number of determinants, the efficiency and effectiveness of fiscal policy vary from one country to another. In developing countries, these determinants play either a weak or negative role, and hence, the efficiency and effectiveness of fiscal policy in those countries is less than that in developed ones. In addition to these challenges that face fiscal policymakers in developing and applied to oil producing countries, fiscal policy in the latter encounters a unique and enormous challenge. Oil income is an exhaustible resource, and its exhaustibility raises some complex issues such as sustainability, economic fluctuation and intergenerational resource allocation. The GCC countries, including Oman, are a special case among the oil-producing countries. Although, these countries have made substantial economic progress in the last two decades, their economies are still heavily influenced by their governments' persistence with huge public expenditure which was financed, almost entirely, by oil revenues. The role of the non-oil sector in these economies is weak, diversification policies still need further efforts, the contribution of tax receipts is insignificant and their balances of payments are characterized principally by the export earnings of the petroleum sector and payments abroad for

non-oil imports. Moreover, these countries need to agree on a framework for harmonising their fiscal policies adopting common external tariffs and by developing other tax bases by levying new taxes, increasing current tax ratios and reducing tax exemption schemes.

The study has also illustrated the relationship between fiscal policy and some macroeconomic variables. According to some theoretical and empirical studies, fiscal policy can be used to influence economic growth through more than one channel, for instance, through public spending on infrastructure, investment and investment accumulation....etc. The high level of military spending is another obstacle that faces fiscal policymakers. Countries spend around 3.4% of GDP on the military. However, in within this average there is a huge variation ranging from 0.1% to 46%, and developing countries have the highest levels. The recent studies found that there are negative effects of military spending on growth. Also correlation has been found between high rate of military expenditure, increasing budgetary deficit and a deterioration in public investment in these countries where large increases in military expenditures have occurred. While planning public expenditure, fiscal policymakers have to take into account several considerations. The most important of which are the prioritising expenditure on each of public service sectors, efficient usage and processing of resources and adopting cost-benefit analysis. This analysis should accorded just as much importance as any project feasibility study which would be adopted by a major private enterprise business though, in case of public expenditure, the analysis should go beyond mere financial profitability. Consequently, policymakers will need to assess not only the appropriateness of the required reduction in this sort of spending, but also reconsider their priorities while allocating the resources.

In addition, the study has shown that an efficient management of fiscal deficit is one of the issues associated with fiscal policy. It has indicated that the Keynesian framework of the planned deficit ignored the long-run effects of debt accumulation, and risks associated with chronic or structural fiscal deficit. Therefore, fiscal deficit

has been at the forefront of macroeconomic adjustment policies in both developing and developed countries. The study has demonstrated that, in many countries, adopting a permanent deficit spending policy resulted in a problem of indebtedness and debt unsustainability. It has concluded that in the light of these alarms and according to the latest changes in the international economic environment, there is a great need for efficient debt management and a detailed review of the institutional arrangements in these countries.

Furthermore, because of the importance of planned coordination between fiscal and monetary policies in managing the economy, the study has attempted to highlight this connotation and demonstrate the risks involved in these contradictions. It has concluded that there is always a need for an efficient management of budgetary deficit and public debt, which exists in the effective and appropriate interaction between debt management and monetary and fiscal policies.

Summing up, fiscal policymakers in developing countries should consider the scope for reallocating existing government spending into priority areas and consider their non-productive spending not only on their present public service priorities but also where there is a rationale for public intervention which at present does not exist. This will be most important in those countries whose tax systems are inefficient and non-progressive. Also, there must be consideration of the distributional and growth impact of spending and an evaluation of the extent to which government intervention is essential, and whether the envisaged public goods or services can be delivered efficiently in accordance with development planning. Furthermore, providing additional revenues in the framework of diversification policy is an important issue.

Characteristics of the Omani Economy

In this regard, the study has concluded that the Omani economy has a number of the characteristics of developing country economies and particularly all the characteristics of the economies of 'rentier states' which are a group of developing countries. The rentier state and rentier mentality has unnoticed impact on the

effectiveness of fiscal policies. The large government expenditure is due to rentier state. Also, the ineffectiveness of fiscal policy is due to rentier mentality as public finances are used to finance rentier mentality. The increased social context of rentier mentality and also the expectations of Omanis of “getting free” results in continuously increasing rentier economy through public and private sectors.

It has also analysed some macroeconomic policies that were adapted to work as a remedy to the fiscal imbalances in addition to help in boosting the contribution of the non-oil sectors in gross domestic product in the light of the expected depletion of its crude oil reserves. The output of present diversification policy was analysed and found insignificant. Except for industry, the contributions from the other non-oil sectors are decreasing. Moreover, the discrepancies between planned growth rates and those achieved were found to be immense. The weak performance of the economic sectors has led to the slow creation of jobs. The Sultanate’s Omanization policy to replace the expatriate workers with Omanis and to help in reducing the level of expatriate worker’s remittances that erode a significant amount of domestic savings, has not achieved its objectives. This can be attributed to the low profitability of the private sector corporations which has led these businesses to offer Omani jobseekers unattractive salaries. So the expatriate workers have been the alternative. These weaknesses, in fact, exemplify the pressing need for fiscal reform in order to improve the stance of the economic sectors and the macroeconomic imbalances. The combination of high dependency on oil revenues, the huge role of the state in the economy, very low non-oil revenues, the high level of government expenditure and the rapid depletion rate of the oil reserves emphasising the crucial need for government resolution to devise effective policy remedies.

Government Expenditure and Growth

Despite these difficulties, the Sultanate of Oman’s economy has experienced persistent economic growth, financial stability and confidence in the economy. The economic achievement and growing private sector confidence and participation in the economy have been mirrored in the prosperity and well-being of the Omani

population in general. Nonetheless, this inspiring economic performance has been supported in part by an expansionary fiscal policy. The deterioration of public sector savings, coupled with the Omani private sector's low propensity to save have harmfully affected the saving-investment balance and increased dependence on foreign savings and investment. Will an increase in government size hinder or accelerate economic growth? Will economic regulations diminish economic efficiency and waste many of the benefits from government activity? Moreover, is the government sector less efficient than a private sector and lead to slower growth? The aim of the study here was to examine the impact of government expenditures on GDP/ non-oil GDP in the case of the Sultanate of Oman as well as other determinants and to explore the causal relationship between government expenditure, disaggregated into investment and recurrent spending, and output. Further objectives were to reveal the effect of fiscal policies on the Omani economy in economic development and how government policies affect the diversification policy and to test whether causality runs from output to government expenditures or, in case of no causality, to suggest if rationalizing the size of government as a remedy to face the budgetary deficit, would be an appropriate fiscal instrument for Oman to adopt.

Firstly, in a model to examine the impact of government expenditures on GDP/ non-oil GDP, government expenditures were categorized into productive (investment) and unproductive (recurrent expenditure, foreign debt service payments and participation and support expenditures). The former category was expected to be growth-promoting with the latter being growth-retarding. The results suggest that increased government investment expenditure was associated with lower growth and that government recurrent expenditure has a significant positive influence. Moreover, there is evidence of a negative link between foreign debt service expenditure payments and growth, and further evidence that government spending allocated to participation and support though the latter is insignificant. Overall, it seems possible to conclude that most types of government expenditures appear to be growth-retardant. This could be attributed to inefficient fiscal policies particularly in the long-run.

Secondly, in order to check for causation relationship between government size and GDP/ non-oil GDP, the Granger causality test was utilized. This test did not support any causal relationship between disaggregated government expenditure (recurrent and investment) and GDP. Consequently, these empirical findings do not support the proposition that changes in government expenditure tend to accelerate or slow GDP growth. Namely, non-oil GDP Granger causes government investment expenditure and not vice versa. The conclusion to be drawn is that the absence of causality between government recurrent expenditure and non-oil GDP considered along with the unidirectional Granger causality between government investment expenditure, which running from non-oil GDP to government investment expenditure do not support the proposition that changes in government expenditure tend to accelerate or slow GDP growth. Hence, rationalizing the size of government, as a remedy to face budgetary imbalances, and as a result, curb the growth of foreign debt would be an appropriate fiscal instrument for Omani policymakers to adopt.

Moreover, the contemporaneous relationship between disaggregated public expenditure and GNP was probed. The Johansen cointegration test and the Granger causality test were deployed to determine the long-run relationship as well as the directions and patterns of causality between the disaggregated public expenditure and GNP. Neither test offered any support for the Wagnerian law which states that economic growth causes the growth of government expenditure. Nor was it possible to conclude in the favour of the Keynesian hypothesis, which suggests that government expenditure causes economic growth. These results again support the proposition that shrinking government expenditure, as a strategy to face fiscal deficits in Oman, could be adopted. Based on the regression results of the impact of government expenditure on economic growth, namely the inverse effect of government capital expenditure captured in the above-mentioned two regressions, together with the these findings, it is possible to state that in reality, government expenditures are not efficient. Even capital expenditures can yield inadequate returns. As an example, in the absence of appropriate screening and monitoring

mechanisms, government may be able to borrow huge sums of money at inflated rates of interest and invest them in projects which are over-expensive produce a poor social or economic return and which thereby undermine the prospects for debt sustainability.

These empirical findings are in line with Endogenous growth thought, which asserts that an increase in investment expenditure will either increase or retard economic growth depending on the size of the government, the efficiency and productivity level of policies utilized and the nature of the allocation process. Furthermore, they also come in line with other empirical studies which have examined Oman's economy and those of the other AGC countries.

Public Investment and Private Investment

The study has proved that a reduction of the role of government in the economy is a key element in increasing the role of the market mechanism in the Omani economy. According to the programmes recommended by the World Bank and the IMF, decreasing the role of the government will reduce barriers to private initiative and will motivate private investment activities, both qualitatively and quantitatively. Increased private investment ultimately leads to a higher economic growth. Moreover, the IMF expects the existence of crowding-out effect of public investment on private investment, stating that "private investment would dwindle due to a combination of lower productivity of investment and the public sector's "crowding out" effects."

The study has also demonstrated the importance of the private sector in the national economy. It refers to the private sector as the main 'engine' for economic growth. Good examples of its importance are that growth in the private sector generates employment opportunities, creates income for people, provides governments with tax revenues which enable it to fund crucial basic services and produces the goods and services people need to improve their quality of life. Both public and private investment ratios are modest particularly when compared to the other AGC countries

ratios. Given that private investment is dwindling due to a combination of lower productivity of investment and the public sector's crowding-out effects, it is clear that another issue retarding the development of private investment is the inappropriate allocation of the credit flow to the private sector from the banking system. If the Government wishes to strengthen the private sector, it is important at this stage for the private financial system to be able to participate fully in providing funds for investment and to establish direct links with private sector.

The study has also shown the development of both public and private investment. As the public and private investment ratios have declined, substantially, since the beginning of the period, so the dominance of public expenditure over private has the more noticeable and that the private investment emerges to reflect the dominance of public expenditure. Moreover, the low level of private investment during the period demonstrates the lack of appropriate planning strategies to encourage private investment and privatization. The main rationale of such policies and strategies was to boost private investment in the national economy and to augment economic development through market forces. Nonetheless, these policies resulted in a decline in the growth of public investment. The relatively higher growth rates of private investment in 1997 and 1998 can be attributed to growth-oriented strategies along with the policies of liberalization and de-regulation. Furthermore, in order to control the increasing budget deficit, the fiscal policymakers started reducing public sector development. However, these policies resulted again in lower private investment in the period of 1999-2002. With this backdrop, it becomes essential to explore whether public investment is crowding-out private investment.

In order to examine the existence of the issue, the study utilized a model suggested as being appropriate in the case of the Sultanate of Oman. The results indicated clear evidence that public investment significantly and negatively affect private investment, suggesting a substituting as well as complementary effect. In other word, public investments crowd-out private investments in the case of Oman.

The crowding-out effect of public investment possibly suggests that the government has invested in projects which are substitutes for private investment. The statistically significant and positive effect of imports on private investment denotes the importance of this variable in explaining the development of private investment in the Omani economy, and as a crowding-in factor. As expected, population growth crowds-in private investment. As anticipated, the inappropriate allocation of the credit flow to the private sector from the banking system in the Sultanate also plays a negative role in the development of private investment.

Internal and External Dimensions of Budgetary Deficit

The study has presented a number of stylised facts concerning the expansionary fiscal policy adopted in Oman. It then inspected two dimensions, internal and external, for such a policy. In this regard various econometric measurements have been utilized to examine the policies currently adopted towards the budgetary deficit and public foreign debt. First, the study shows internal dimensions of the effects of budgetary deficit and public foreign debt. The contemporaneous relationship between the budgetary deficit and public foreign debt and the growth ratio of GNP and GNP per capita. The utilized pairwise Granger causality test employed to inspect the direction of causality between the changes of foreign public debt and budgetary deficit and GNP/GNP per capita growth did not provide any stand on the existence of any causal relationship running either from foreign public debt and budgetary deficit to GNP/GNP per capita growth or vice versa.

Second, the study considered the external dimension of the effects of budgetary deficit and public foreign debt. It examined the effects of fiscal deficit on the Omani balance of payments and tested for the existence of any “twin deficit” phenomenon in the Omani economy. Utilizing OLS analysis, the Granger bivariate causality test and vector autoregression (VAR), a predominantly unidirectional causality from budget deficit to both current account and trade deficit of the balance of payments in the Sultanate’s economy was obtained. Based on these results, the empirical evidence, in the case of the Sultanate of Oman, supports the Keynesian proposition,

and sustains the view that fiscal policy measures, which are able to reduce budget deficit and hence public foreign debt, would also contribute in maintaining an external equilibrium.

Taxation Policies in Oman

The study examined two of the most important fiscal issues in the Omani economy: firstly, the potential of taxation policy, and the reasons behind the low tax revenue, as a share of GDP; secondly, the efficiency of the wide range of tax incentives and tax cuts being granted in Oman, and the effect of its taxation policies on FDI inflows from both theoretical and empirical dimension.

The regression results of the first issue showed that per capita income is statistically significant and possesses a positive sign. This indicates that it has a high positive impact on the tax ratio in Oman. Surprisingly, the agriculture share positively relates to tax revenue. As expected, the mining share is significantly and inversely relates to tax revenue. This may be due to the fact that the economy heavily depends on this sector and that oil production is wholly owned by the government. The import and mining shares also positively relate to tax revenue with statistical significance.

The tax effort during the period from 1980-2002 accordingly was counted. The result shows a wide gap between actual and potential tax revenues. This gap reflects the high potential of taxation policy. However, this can also indicate the existence of tax evasion and tax avoidance.

The study also considered the incentives and tax cuts being granted. Theoretically, the study showed the justifications of adopting such policy and offered contrasting views of how effective such policy could be and whether it is feasible. Although, there is a growing support for the idea that tax incentives can be effective in attracting FDI, it has to be recognized that other countries may offer similar non-tax attractions. Countries could compete in offering tax incentives in a way, which provide a benefit to the investor. The question that policymakers in the Sultanate of

Oman have to answer is whether the additional investment created by such incentives is really worth the revenue forgone from investments that would have been made without the incentives

The study examined the issue empirically utilizing the OLS method to perform regression. The results were consistent and robust. All coefficients were significant and mostly possessed the expected signs. Most variables were as expected, positively and significantly related to FDI net inflows. Unexpectedly, the relationship between GDP and FDI net inflows was negative and significant. Most importantly the results suggest that tax rates positively relate to FDI net inflows. In fact, this suggests that the foreign investor does not necessarily respond to tax incentives being offered, and that, there are, in addition to the incentives mentioned, other determinants behind the deterioration of FDI inflows. However, discussing such an issue is beyond the scope of this study. The findings of the study in this regards were consistent with a number of previous studies. Some of these have revealed that political stability and economic stability were the two top determinants of FDI in the Sultanate of Oman, and that the Sultanate needs to determine the country of origin of the targeted investor, match the incentives offered with the needs and wants of these investors and to promote these decisions accordingly. The insignificant role of taxation in attracting FDI confirms the limited role of tax policy in determining the size of FDI. Accordingly, it can be argued that the low corporate income tax rates deserve a revision.

8.3 Summary of Findings

The picture painted above can be seen as supporting the study's basic arguments as below that:

1. The potential of tax policy, as a source of public revenue in the Omani economy, must be given serious attention. The wide gap between actual and potential tax revenues reflect the high potential of taxation policy;

2. There is evidence indicating that Keynesians thinking on the effect of multiplier and accelerator of government expenditure is applicable in the case of the Sultanate of Oman. This is, particularly, clear regarding government recurrent expenditures. However, most of the findings in this study demonstrate that depend on its efficiency and effectiveness, government expenditure may effect growth positively. This suggests the application of Endogenous growth theory in the Omani economy;
3. Depending on the efficiency and effectiveness of the fiscal policies adopted, economic planning may succeed in achieving its goals;
4. Fiscal policies in the Sultanate of Oman have been unable to guarantee the required harmony and accordance with the economic planning requisites;
5. Fiscal policies have failed to play an effective role in a number of issues, the most important of which are: reaching the planned levels of diversification and strengthening the fundamental economic sectors; constructing an effective taxation system; accomplishing a proper utilization of a government investment expenditure; achieving a sufficient level of efficiency in employing the flows of the foreign public debt;
6. Economic theories that may be applied in a developed country are not necessarily applicable to a developing one. Likewise, in the case of non-oil- and oil-producing countries.

8.4 Recommendations

From the findings of the study, there is a clear and inescapable need to pursue detailed reform of the Sultanate of Oman's economic policies. Focus should be on:

- Maintaining harmony and accordance between fiscal policies, both in the short and long-run, developing effective economic planning is a considerable and vital issue to gain the fruit of economic planning;
- Only adherence of fiscal policies with the planned economic goals can guarantee the success of the economic planning process; in Oman;
- Since the study has shown the government as an unsuccessful investor, reducing inefficient government investments as well as improving the efficiency of those investments that cannot be avoided, could be an appropriate policy to control the budgetary deficit and also to reduce the crowding-out effect of government investment on the private investment. This may be achieved by ensuring effective supervision of those investments which at the same time will support privatization policy;
- Sustaining a low level of budgetary deficit (e.g. 3% of GDP), through appropriate and effective methods of developing new types of public revenues, and restricting public borrowing, especially foreign, to finance only feasible and efficient investment purposes and those public projects which are essential instruments in achieving an overall fiscal balance;
- Using budgetary surpluses to repay foreign public debt;
- Intensifying scrutiny of government expenditures allocated for participation and support purposes , particularly, those assigned for projects within the private sector;
- Restructuring ineffective corporation taxation policies which have been adopted to attract FDI, as well as discontinuing diminish public revenue by further reduction in the present tax rates;

- As in other countries, determining a ceiling of budgetary deficit of 3% of GDP as a strategy to control fiscal imbalances;
- Constituting a national committee from the parliamentary institutions (e.g. the Shura Council, the State Council and the Oman Council), the Ministry of Finance, the Ministry of National Economy, the Central Bank of Oman, to act as consultants to endorse any borrowing needed;
- Increasing taxation awareness as an essential requirement to prepare the Oman's Society for the beyond oil era when the oil runs out.

8.5 Further Review

Further studies are recommended as below:

- A study on the impact of defence expenditure on growth is strongly recommended. This could also help in shedding valuable light on the way government behaves when considering spending priorities.
- Research on the optimality of government size is helpful to inspect whether government expenditure is optimal.
- Studying the feasibility of government subsidies to private sector (participation and support expenditure), in achieving its goals, is also strongly recommended.
- Further research employing more sophisticated econometric techniques on the relationship between government size and economic growth could be helpful.

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